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Young Man's Companion,

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A Compendious English Grammar.

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with COPIES both in Prose and Verse.

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Value of foreign Gold; The two great Roads from *Edin-
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Britain* to and from foreign Nations, &c. &c. &c.

AND

An English Spelling Dictionary.

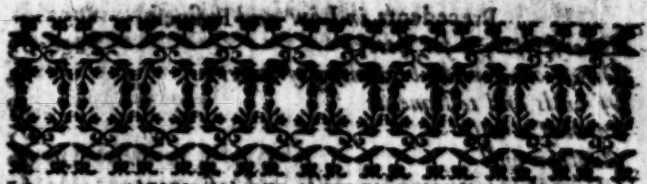
*The whole calculated to qualify Persons for Business, without
a Master, and illustrated with a Map of the World.*

By **THOMAS WISE**, Accomptant.

The Third Edition, greatly enlarged and improved.

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T H E
C O N T E N T S

A Compendious English grammar	Page 1
Directions for writing	
How to make a pen	12
A receipt for the best black ink	13
To make London ink powder	14
To make Japan, or shining ink	15
A powder ink to rub on paper and write on	17
How to make red ink	18
To keep ink from freezing or moulding	19
C Copies for Writing	
Single line copies in prose in an alphabetical order	20
Copies in verse	21
Of the points, or stops, and other marks used in writing and reading, with their characters, places and significations	22
Of abbreviations	23
To write on paper gold letters called shell gold	24
How to write secret letters	25
Another way to write secret letters	26
How to write both blue and red letters at once, with the same ink and pen, and upon the same paper	27
A poem in praise of writing	28
A curious collection of letters on compliment, business and several other occasions	29

C O N T E N T S.

<i>Precedents in Law and Business</i>	Page 63
<i>Superscriptions for letters</i>	64
<i>Directions for the beginning of letters</i>	65
<i>Of wills and testaments</i>	66
<i>Form of a will</i>	67
<i>Another will</i>	68
<i>Observations concerning wills and testaments</i>	69
<i>The form of a letter of attorney, to execute a particular business</i>	70
<i>A form of a revocation of a letter of attorney</i>	71
<i>The form of an indenture for an apprentice</i>	72
<i>A letter of attorney from a seaman</i>	73
<i>A bond and the condition</i>	74
<i>A condition to stand to the award of arbitrators</i>	75
<i>The form of an umpirage of award</i>	76
<i>A letter of licence to a debtor</i>	77
<i>A bill of sale</i>	78
<i>A general release</i>	79
<i>Of wives, children and servants</i>	80
<i>Of sons and daughters</i>	81
<i>Of servants</i>	82
<i>Forms of Receipts, Bills, Notes, &c.</i>	83
<i>Various forms of acquittances, when an apprentice, or servant receives money for the use of his master, or employer, &c.</i>	84
<i>Various forms of acquittances, upon receipt of money, by masters and men of business themselves</i>	85
<i>Promissory notes by bankers apprentices and servants</i>	86
<i>Promissory notes for a man's self, &c.</i>	87
<i>A bill of debt</i>	88
<i>Another</i>	89
<i>Promissory notes</i>	90
<i>Arithmetic in all its branches</i>	91
<i>The mensuration of plain superficies (or flat measure) such as board, glass, wainscot, painting and the like</i>	92
<i>A short and easy method of book-keeping, after the Italian manner</i>	93

C O N T E N T S

Accounts ready cast up for buying or selling any commodity by number, weight and measure	Page 223
The use of the ables showing accounts ready cast up with examples	242
A compendium of geography	243
A table showing the parallel of latitude, the breadth and length of the day in every climate	244
The world divided into	245
Europe	249
Asia	257
Africa	261
America	264
British islands	267
An account of the several counties in England, with their produce, market towns and market days	368
Of the management of horses	368
Rules for buying horses	368
Rules for travelling, with directions for preventing and curing the disorders horses are incident to on the road	368
How to save a horse's back from galling	368
Of the navel gall	368
How to cure a horse of the navel gall	368
Of swelled legs	368
Of scratches	368
Of gravel in the hoof	368
On a clap in the back	368
Of strains in the fillets	368
Of windgalls	368
Of colds	368
Of scouring or immoderate purging	368
Of a cold in the head	368
Of a hurt on the eye	368
Of a swelled neck	368
Of the gravel	368
The art of painting in oil	367
A catalogue of the several colours used therein	ib
How to make a size for the gilding both with gold and silver	319

CONTENTS

The art of working oil colours, and painting timber	310
How to gild with gold on any body, size either letters	314
How to gild with silver	315
Some directions for mixing oil colours for direct purposes, in the art of colouring prints with oil colours	326
Colours for faces	ib
for hair	ib
for garments	327
for trees	ib
for gardens behind a picture	328
for ground in a landscape	ib
colours	ib
The whole art and mystery of colouring maps, and other prints in water colours	332
Of the practice of colouring maps	332
Directions how to lay on mezzotinto prints on glass	333
Supports and imports of Great Britain to and from several reign nations	334
Alphabetical list of English manufactures, with the best markets for the purchase of them	339
Table shewing the value of Portugal pieces, according to pounds, shillings and pence sterling	342
Table of the two great roads from Edinburgh to London	344
An English spelling dictionary	345





A COMPENDIOUS
J. R. Maxwell
ENGLISH GRAMMAR.



GRAMMAR, in any language, is that art or science that teacheth the true and proper use of *letters, syllables, words, and sentences*. And tho' several rules and observations, applicable only to one particular speech or tongue, are different from those of another, yet such as concern the general relation, that things have to their modes, qualities, motions or passions, are exactly the same in all the languages in the world; for any *name, quality, &c.* in the *English* language is the same in any other, though expressed in a different term. From whence may be perceived, how far the generality of people are mistaken, in the notion they have, that it is absolutely necessary for all young persons to read the *Latin*, or *Lilly's* grammar, before they can attain to a right understanding of the *English*: for all the grammars of the *Latin* tongue are mostly employed to teach the various terminations, &c. of the flexions, modes, formations, and words of that language, a matter which no way concerns the *English*. But there are some few general rules in that and all other grammars that may be applied to the *English*, or any other language whatever.

I shall not here enter into a critical dissertation upon each letter, nor divide them into vowels, consonants, mutes, liquids, &c. nor shall I divide the language into eight parts, as is generally done, but into four, viz.

NAMES.

AFFIRMATIONS.

QUALITIES. | PARTICLES, or the *manner of words*.

Names express the *things themselves*, i. e. every thing that is the object of our several senses, reflexion, and understanding: which conveying some certain *idea* or *image* to the mind, want not the help of any other word to make them understood: as when we hear any one say, *a man, a horse, virtue, vice, &c.* we perfectly understand what he means.

Names express the things themselves, you cannot therefore put the word *thing* after them thus, *man thing, virtua thing, &c.* without making nonsense.

They admit of *a* or *the* before them, and *an* when they begin with a vowel.

There are two sorts of *Names*, *Common Names* are such as agree to, or express the whole species; as the name *horse* signifies *my horse, your horse*, and all the *horses* that are.

Proper Names distinguish particulars of the species from each other; as *Cesar, Pompey, Cato*, distinguish those men from the rest of mankind. The same holds of the *proper names* of *cities, towns, mountains, rivers, countries, &c.*

Qualities are the manners of *names*, or things expressed by them, as *good, bad, round, square, &c.* For example: the being of *wax*, is the substance of *wax*, or *wax* itself, without regard to any form or colour, and is what we call the name, the roundness, squareness, &c. of the figure are the manners of the being; as to be ignorant or knowing, are the manners or qualities of our being: thus we say a *good, bad, black, white, &c.* horse; *horse* is the name, and *good, bad, black, white, &c.* are the qualities of that name.

The 3^d general head is the *affirmation*, under which term the existence, action, or passion of the subject is affirmed, as, *the black horse runs, the common-sewer stinks, the young child cries.* Here *black, common, and young* are qualities; as expressing some mode or quality of their subjects or names, *horse, sewer and child*; and the words *runs, stinks and cries* denoting the several actions of their subjects or names. It is usual to call these

by three different appellations, viz. *substantive*, *active*, and *passive*; those that are found to signify the being or existence of any thing, as *I am*, &c. are termed *substantives*; those that signify the acting or doing of any thing, as *I see*, &c. are termed *actives*; where passion or the suffering of any thing is signified, as *I am seen*, &c. they are *passives*.

The 4th class of words I call by the general name of *particles*, which are occasionally made use of to make the sense of the speaker more full, clear, and intelligible, by expressing the manner, or other circumstances of the other words, either by connecting them together, or shewing the manners or qualities of them; viz. *John and Mary strive earnestly*; here, *and earnestly*, are *particles*; *and*, joining the two names *John*, *Mary*; *earnestly* shewing the mode of their striving.

A substantive has what is called two numbers, the one expressing only some one single thing of a sort or species, as *a Man*, the other all above one, as *Men*, viz. two, three, twenty, a thousand, &c. and this is called the plural number: The *singular number* is commonly distinguished by *a*, *an*, or *one*; as *a horse*, *a man*, *an image*, *an idiot*, *one child*, *one wife*, &c. The *plural number* is generally known by the words terminating with an *s*, or *es*; but the *singular* never, but in such as have a *plural* termination, tho' they have a *singular* meaning; as, *arm*, *arms*: *horse*, *horses*: *king*, *kings*: *stone*, *stones*, &c.

There are some exceptions to this general rule, but they are few in comparison to those that it comprehends: such as *ox*, *oxen*; *man*, *men*; *brother*, *brethren*; *cow*, *cows* or *kine*; *mouse*, *mice*: *foot*, *feet*; *tooth*, *teeth*; *penny*, *pence*, &c. *Singulars* which end in *s* or *se*, have their *plurals* ending in *ves*; as *wife*, *wives*: *self*, *selves*; *knife*, *knives*: *wolf*, *wolves*, &c. And tho' most words, whose *singulars* end in *ss*, follow the general rule foregoing, as *muss*, *mussi*, &c. yet *staff* makes *staves*, according to the latter rule.

Some terminate alike in both numbers, as *one sheep*, *ten sheep*: *one swine*, *ten swine*, &c.

There are some words that admit of no singular number, such as *ashet*, *bowels*, *creffes*, &c. And on the con-

rary there are a great many that want the plural number; such as proper names of men, women, places, creatures and things; as also their virtues, vices, habits, and abstract qualities, the generality of grains, spices, herbs, drugs and liquids, as, *wheat, rye, pepper, ginger, grass, air, blood, milk, &c.*

To the *English* language thir belong *three genders*, which in conformity to the custom used in the *Greek* and *Latin* tongues, may be called *masculine, feminine* and *neuter*; the *masculine* comprehending all males, the *feminine* all females, and the *neuter* all things without life; and these are thus distinguished by these terms, *he, his* or *him*, for the *masculine*; *she, her, hers, &c.* for the *feminine*; and *it* for the *neuter*, but the quality remains the same, and is as applicable to males as females or things without life called neuters, as *a good boy, a good girl, a good knife, &c.*

Some feminines are formed by changing the termination of the masculine into *ess*, as *count, countess*; *duke, dutchess*; *heir, heiress*; *lion, lioness, &c.*

The *English* language has three persons, *viz. I*, the first; *thou*, the second; *he, she, it*, the third, in the singular number; and *we*; *ye, you*; *they, those*, in the plural; to which may be added *who, whom* or *what*. These distinctions are absolutely necessary, as appears from the nature of speech, which is always employed about the person or persons, then immediately speaking, denoted by the characteristic *I* or *we*; the person or thing spoken to, by *thou, ye* or *you*; or the person or thing spoken of, by *he, she, it, they, &c.* This is to be understood when they stand before an affirmation, as *I write, thou writest, he writeth*, but in compound sentences, and after affirmations they are changed into *me, thee, him, &c.* as *I can prove this horse belongs to me, thee, &c.*

All qualities in *English* are the same in both numbers, as *a good man, ten good men, &c.* and unless some name be joined with it, to determine what quality it is to be understood of, it can never make the sense complete; as, *good, bad, &c.* have no meaning till applied; as, *a good boy, a bad horse, &c.*

When two names are compounded into one word,

the first becomes a quality, as, *sea-fish, gold-cup, &c.*

My, thy, her, our, your, their, are called *personal possessives*, and are only used when they are joined with names as, *this is my horse, my coat, my book, &c.* but when the sense is not expressed immediately, but understood, or a question is asked, they are changed into *mine, thine, hers, yours, theirs*; as, *this knife is mine*; that is, *this is my knife*; *whose knife is this?* *Mine*, or it is *my knife, &c.*

To *qualities* belongs also increase or diminution of the value, goodness or virtue of the names to which they are joined; and these are generally formed by adding *er* and *est* to the plain simple word itself; as, *fair, fairer, fairest*; the sometimes they are made by adding *more* or *most* to the simple word, as, *fairer* or *more fair, fairest* or *most fair*: reading and observation will quickly teach any person where to introduce these in the most advantageous place. These four following are irregular; *good, better, best; bad or ill, worse, worst; little, less, least; much, more, most.*

Instead of the various terminations and declensions of the other languages, the *English* use *a* or *the, of, to, by, from* or *with, &c.* to distinguish the several circumstances of the *name* both when it is alone, and also when it is joined with the *quality* in both numbers: as,

<i>Singular number.</i>	<i>Plural number.</i>
<i>A or the man.</i>	<i>The men.</i>
<i>Of a or the man.</i>	<i>Of the men.</i>
<i>To a or the man.</i>	<i>To the men.</i>
<i>By, from or with a or the man.</i>	<i>By from or with the men.</i>

<i>Singular.</i>	<i>Plural.</i>
<i>A or the good horse, &c.</i>	<i>The good horses, &c.</i>
<i>Of a or the good horse, &c.</i>	<i>Of the good horses, &c.</i>

We have already taken notice that the third class of words, is the affirmation and what its office is; we shall only here observe, that it has *two numbers, time, and person* belonging to it, by which the being, action, or passion of the subject or name is declared or affirmed; for the expressing the true state of the time, there is *what*

A Compendious English Grammar.

are usually called *auxiliaries*, from or by which the times of other affirmations are expressed, there being only the *present* and the *passing time* naturally arising from the different endings of the words themselves; that is, the *present* and the *passing*, or *past time*, as *love* the present, and *lov'd* or *loved* the passing time. The present time, or the instant in which any thing is actually performing, &c. is distinguished by the words *do*, *doest*, or *dost*, for the singular number; and *do* only for the plural, with the proper personal signs, *I*, *thou*, *he*, *we*, *ye*, *they*, &c. The passing time is an imperfect manner of expressing, and intimates so much, having the sign *did*, or the termination *ed*: the past time shews the action complete, by affirming something with the sign *have*; there is also what is called the *preterpluperfect tense*, and has the sign *had* affixed to it, the other is the *future tense* that affirms something *shall* or *will* be hereafter. And tho' there are really but three proper distinctions of time, viz. the *present*, the *past*, and the *future*, yet as our language, as well as others, hath various terminations, or manners of expression, we shall insert them: as to the distinctions of what is commonly called *moods*, it is undeniably certain that they may be denominated as variously and be as numerous as the particular circumstances require.

As what is called the *potential* and *subjunctive moods*, are an undeniable proof of differing only by some accidental signs; for which reason they are not here enumerated, but called the *1st*, *2d*, *3d*, and *4th mood*. The first declaring or making some positive assertion about, or relating to the subject, or name. The second having only one tense and five persons, and is employed wholly about commanding or ordaining, praying or permitting something to be done, without any specification of time. The third may be variously circumstanced, according as it has its expletives adjoining. And the fourth expresses the action barely and indefinitely as to time. The two auxiliaries supply all others, with those tenses or times which they naturally have no proper termination or distinction for, viz. *to have*, by whose assistance all actives are formed, or such as import doing something; and *to be*, from which all passives are formed, that is, such

as import suffering or bearing something done to the subject.

The first or indicative mood.

<i>Present tense.</i>		<i>Present tense.</i>	
<i>Singular.</i>		<i>Plural.</i>	
<i>I</i> —have		<i>We</i> —have	
<i>Thou</i> —hast		<i>Ye</i> —have	
<i>He</i> —hath		<i>They</i> —have	
<i>Past tense.</i>		<i>Past tense.</i>	
<i>Singular.</i>		<i>Plural.</i>	
<i>I</i> —had		<i>We</i> —had	
<i>Thou</i> —hadst		<i>Ye</i> —had	
<i>He</i> —had		<i>They</i> —had	
<i>Future tense.</i>		<i>Future tense.</i>	
<i>Singular.</i>		<i>Plural.</i>	
<i>I</i> shall or will have		<i>We</i>	} shall or will have
<i>Thou</i> shalt or wilt have		<i>Ye</i>	
<i>He</i> shall or will have		<i>They</i>	

Some make other distinctions of time, but as they are only a coupling of those together, this short essay will not permit the disquisition; such as, *I have had, I had had, &c.*

The second or imperative mood.

Have thou. Let him, her, it have. Let us have. Have ye. Let them have.

The third or subjunctive, potential, &c. mood,

Is always distinguished by adding some sign of wishing, power, &c. as *I may or can have; I might, could, should or ought to have, &c.*

The fourth or infinitive mood,

Is always distinguished by the sign *to*; as, *to have, to love, &c.* from this mood that quality called a *participle*, is formed, importing possession; as *having, being, loving, &c.*

The first or indicative mood.

<i>Present tense.</i>		<i>Present tense.</i>		<i>Past tense.</i>		<i>Past tense.</i>	
<i>Singular.</i>		<i>Plural.</i>		<i>Singular.</i>		<i>Plural.</i>	
<i>I</i> am		<i>We</i> are		<i>I</i> was		<i>We</i> were	
<i>Thou</i> art		<i>Ye</i> are		<i>Thou</i> wast		<i>Ye</i> were	
<i>He, she, it</i> is		<i>They</i> are		<i>He</i> was		<i>They</i> were	

A Compendious English Grammar.

Future tense.

Singular.

I shall or will be

Thou shalt or wilt be

He shall or will be

Future tense.

Plural.

We

Ye

They

shall or will be

There are other expressions, called tenses, compounded of have, and this verb, as *I have been, &c. I had been, &c.*

The second or imperative mood.

Be thou. Let him, her, it be. Let us be. Be ye. Let them be.

The third or subjunctive, &c. mood.

That I may, can, might, would, could, should or ought to be, &c.

The fourth or infinitive mood.

To be, to have been. Being.

From these all other affirmations regular and irregular are formed and completed, to express every possible circumstance of time, action, or passion: as for example.

1st Mood.

I love, I loved, I have loved, I had loved, I shall or will love.

We We We

We

We

Thou lovest or dost love

Thou lovedst or didst love

Ye love or do love

Ye loved or did love

Thou hast loved

Thou hadst loved

Ye have loved

Ye had loved

Thou shalt or wilt love

They shall or will love

2d Mood.

Love thou; love he, she, or it, or let him, her, or it love; love we, or let us love; love ye; love they, or let them love.

3d Mood.

I, thou, he, she, &c. may, can, might, could, &c. love.

4th Mood.

To love, loving, &c.

From what has been said, it is observable, that the natural formations are made successively, thus: first, something is affirmed by the first person singular; as I

love, then I loved, or did love, then I have or had loved; and afterwards shall or will love. But there are some verbs that are irregular, and instead of ending in ed, in the 2d and 3d tenses have particular endings of their own; as, I bear, bore, have born; I beat, have beaten; I begin, have begun; I behold, have beheld; I bend, have bent; I bind, have bound; I bite, have bitten; I blow, blew, have blown; I bleed, have bled; I breed, have bred; I bring, have brought; I break, broke, have broken; I am born, was born, have been born; I buy, have bought; I catch, have caught; I chide, chid, have chidden; choose, chose, have chosen; I come, came, am come; I cleave, clove, have cloven; I cut, have cut; I creep, crept or crept, have crept; I crow, crew; I dare, durst; I deal, dealt; I do, did, have done; I draw, drew, have drawn; I dream, dreamt; I drink, drank, have drunk; I drive, drove, have driven; I do eat, did eat, have eaten; I fall, fell, am fallen; I feed, fed; I feel, felt; I do fetch, did fetch; I fight, have fought; I find, found; I sing, sung; I fly, flew, am flown; I fly, fled, am fled; I forget, forgot, have forgotten; I get, got; I give, gave, have given; I go, went, am gone; I grind, ground; I grew, grow, am grown; I hang, hung, have hanged; I hear, heard; I hide, hid, have hidden; I hold, held; I keep, kept; I know, knew, have known; I lead, led; I learn, learnt; I leave, left; I lend, lent; I do let, did let, have let; I lie, have lain; I lye, lyed; I lose, lost; I make, made; I mean, meant; I meet, met; I miss, miss or missed; I owe, have owed; I do, did, have put; I do, did, have read; I ride, rid, have ridden; I ring, rung; I rise, rose, am risen; I do, did, have run; I say, said; I see, saw, have seen; I seek, sought; I sell, sold; I send, sent; I do, did, have shed; I shine, shone; I shoe, shod, I shoot, shot; I shrink, shrunk; I sing, song or sung; I sit, sat or sate; I slay, slew, have slain; I sleep, slept; I slide, slid; I sling, slung; I smell, smelt; I smite, smote, have smitten; I speak, spoke, have spoken; I spend, spent; I spill, spilled or spilt; I spin, spun; I spit, have spit or spitten; I do, did, or have spread; I spring, or sprung; I spit or spat; I sow, sowed, have sown; I stand, stood; I stink, stunk; I strike, struck,

have stricken; I string, strung; I swear, swore have sworn; I do or did sweat, have sweated; I sweep, swept; I swim, swam, have swum; I take, took, have taken; I teach, taught; I tear, tore, have torn: I tell, told: I think, thought: I thrive, throve, have thriven: I throw, threw, have thrown: I tread, trod, have trodden: I understand, understood: I weave, wove, have weaved: I weep, wept: I win, won: I am, was, have been willing: I work, wrought: I wring, wrung: I write, wrote, have written.

The fourth part is here universally called *particles* under which denomination, all those small words that tie or unite the others together, or that express the modes or manners of words are signified, and which usually, by the common grammarians, are called *adverbs, conjunctions, prepositions, and interjections*. From the due use and connexion of these four parts, are formed sentences; and from a number or multitude of sentences, arise regular discourses, speeches, &c. A sentence consists of three words at least, by which some idea of the mind is expressed; as *lying is hateful*. And this is called a simple sentence, wherein the name or thing is expressed but once, and something is affirmed of that subject: first, its being, and next its mode of being, or else some action of the subject passes upon another, or at least is understood so to do. All others are compounded, wherein either the same subject or name is repeated, or different ones affirmed something of, &c. The name ordinarily is placed before the affirmation and is always really expressed or understood so to be; as, *John loves Mary*. And here it must always be observed, that the same number and person, that the name whose action or passion is intended or expressed by the affirmation is, the same must the affirmation itself be; as in the example above, the name *John*, is the third person singular, and so is the affirmation *loves*; and in the following sentence, *men love your wives*; the name *men* is the second person plural, so is the affirmation. *We admire learning*; here *we* is the first person plural and *admire*, is so also; which is to be observed of all others.



DIRECTIONS

F O R

W R I T I N G.

I Shall endeavour to make this performance useful to those who desire to write well for common business; as also to such teachers who want to be instructed in the first principles of the art of writing. And therefore I shall not trouble you with a long, unnecessary account of the dependence of all the letters in the several alphabets upon one another, that being easily discovered (so far as is material) by any one who knows but the fundamental letters of each hand, which I shall only mention and leave the rest to your own observation.

The several sorts of hands now in use among us, may be divided into two branches, *viz.* those of absolute use for business, and those which are only ornamental. Those of absolute use may be reckoned six, the round-hand and *Italian*, in which most of the common affairs of trade, and the ordinary business of life, are written by all *Europeans*; the engrossing, square text, court, and chancery hands, in which all the various business of the law is generally transacted, and recorded. The other hands *viz.* the old *English*, the *Roman* and *Italian* prints, the *German* text, &c. are only made use of by way of ornament, or for curiosity in some particular cases, and therefore the writing of them is not esteemed of such necessity to those who are intended for common business.

The principal things to be aimed at in order to write any hand well, are those two; *first*, To get an exact no-

tion or idea of a good letter, which may be done by a frequent and nice observation of a correct copy: the other is, To get such a command of hand, as to be able to express, with the pen, that idea upon the paper, which is attained by constant and careful practice after good examples; the learner being first informed of the most necessary things to be observed in his practice of that hand he intends to be master of. I shall therefore,

I. Mention some things to be generally observed in writing.

II. Give some directions for holding the pen.

III. Shew the nature of the pen, with particular rules and proportions for writing each hand.

And, IV. Lay down some proper directions for young persons, when they first enter upon business, in order to bring them to write a good hand with expedition, and to make them place figures after the most beautiful and practical manner.

I. The essential properties of a good piece of writing, are, a due proportion of the characters throughout the whole; a just distance between the letters themselves, as well as the words; with a natural leaning or inclination of the letters one to another: a clean, smooth stroke, performed with a masterly boldness and freedom, without which, the most regular piece is like a dead corps, whose features, tho' they may be exact in symmetry, yet want that spirit which only can render it an object both valuable and delightful.

The proportion of the several letters in most hands, is generally regulated by the *o* and *n*, therefore let the making of them be first carefully practised, and then the other letters which come from them, all which must be of the same width and fullness of strokes as they are of.

The proportion and shape of the letters in any hand, ought to be the same, whether they are written in a large or small size; therefore, let every hand be first learned in a large character, which will not only sooner fix the idea of a good letter in your mind, but also give you a greater freedom, and in a shorter time, than writing of the small will. It is certain, that the lesser is always con-

tained in the greater ; and he that attains to write any hand large, may soon write it as small as he pleases.

Let all strokes, which are the constituent parts of a letter, or, (as some call them) the body-strokes, be made with the full pen, and of the same thickness one with another, as near as is consistent with the nature of the hand you are writing.

Let all the strokes which join the constituent parts of letters, or the letters themselves together, be made with the corner of the pen, and as fine as the hand will admit of ; which strokes must always have some proportion to the body-stroke, and must be thicker, or finer, according as the character is lesser, or greater ; turn not your pen, neither alter the position of your hand, but let it move with a steady, easy motion, and perform every letter without catchings, and convulsive flatterings.

Let the fine strokes answer one another, in a kind of opposition, and in many hands run nearly parallel.

Let all the letters which have not stems above or below the line, be even at top and bottom. Let those which have stems above the other letters be equal in length to *j*, except *t*, and a few other letters in some hands. Let those which have stems below the line, be equal in length to the *j*, some few excepted, which may be seen by the alphabets of the several hands in the examples.

Let the capital letters be equal in height to the little *j*, and a small matter stronger.

Let the distance between words be double to that between letters.

Let the lines be of such a distance that the stems of the letters may not interfere one with another ; to prevent which they must be at least twice the length of an *l* asunder.

II. The next thing is, directions for holding the pen, and sitting to write.

Hold your pen between the two fore-fingers, extended almost straight, and the thumb bending a little outward, and in your right hand, with the hollow side of the pen downwards, and the nib flat upon the paper ; let it rest between the two upper joints of the fore-finger, and upon the end of the middle one, about an inch from

the nib of the pen, the ends of the little finger, and that which is next to it, bend in towards the palm of the hand, about half an inch distant from the end of the middle finger.

Let the book or paper lie directly before you, and your hand rest only on the top of your little finger; let no other part of your hand or wrist touch the paper or desk; rest your arm very lightly between the wrist and elbow. Keep your body upright, and from touching the desk; let your elbow be almost close to your side, and the pen pointed towards the outer part of your left shoulder; so that a line being drawn from the inner part of the arm, at the bend of the elbow to the nib of the pen, will be nearly at right angles with the line you are writing upon. And for the slope hands, turn your left side a little towards the desk; but for the upright ones, let the body be directly before it, and the right elbow turned outwards from your side: so that a right line being drawn from the inner bend of the elbow to the nib of the pen, will make an angle, near 45 degrees with the line you are writing upon. Let the weight of your body rest upon your left arm, and the paper be kept down with your left hand.

Take care of pressing hard upon your pen in writing any hand.

III. As to the nature of the pen, and the particular rules and proportions for writing each hand, though they might be swelled up to a very great number, by enlarging upon every critical nicety, yet I shall deliver only such, as, in my judgment, are most necessary, most beautiful, and most applicable to expeditious practice.

Make the nib of your pen for the round and round text hands, the breadth of the full stroke, and that part lying next the hand somewhat shorter and narrower.

For the *Italian* hand make the nib somewhat finer, and the slit longer.

Note, In writing, where figures are intermixed, they must always slope.

Your figures likewise must be larger than your writing.

When your figures are ranged in columns, make them upright.

How to make a Pen.

TAKE the first, second, or third quill in the wing of a goose or raven (those that are round, slip and clean, are the best:) when you have scrap'd off the thin rind thereof, with the back-edge of your pen-knife, hold it in your left hand with the feather end from you, then enter the back thereof sloping, and cut off as much in length, as the quill is in breadth, and answer that with another cut on the inside, like an opposite to the former; then turn the quill, and enter the edge of your pen-knife even in the back thereof, and exactly in the midst of the half round, neither inclining the blade one way or other, that the slit may not be made awry. Then put in the peg of your knife haft, if it has one for that purpose, or the end of a whole quill, and with a sudden twitch, force up the slit, holding your left hand thumb hard upon the back of the quill, to put a stop how far the slit shall go. This being done, enter your knife sloping in the other side above the slit, about twice the breadth of the quill, and cut away the cradle-piece; then turn the back upwards, and cut down to the end of the slit, the cheek or shoulder-pieces; and in so doing, turn the knife on both sides towards the back. After this, place the inside of the end or nib of the pen, upon the nail of your left hand thumb, holding the quill fast between the fore-finger and middle finger of that hand. *Lastly*, To finish the nib, enter the edge of the knife on the back, and near the end thereof sloping, and immediately turning the edge almost downright, cut it off.

There are four considerations belonging to the quill.

1. If the quill be too hard, steep it a while in water.
2. If it be too soft, harden it with embers.
3. If it be too thick, pare a small quantity from the back of the nib.
4. If it be too thin and weak, strengthen the pen with a short slit, a short nib, and broad shoulder.

A Receipt for the best Black Ink.

TO fix quarts of rain or river water, (but rain water is the best) put one pound and a half of fresh blue galls of *Aleppo*, (for those of *Smyrna* are not strong enough) bruised pretty small; eight ounces of copperas, clean, rocky and green; eight ounces of clean, bright and clear gum arabick; and two ounces of rock allum: let these stand together in a large stone bottle, or clean stone pot, or earthen pot, with a narrow mouth to keep it free from dust; shake, rowl, or stir it well once every day, and you will have excellent ink in about a month's time, and the older it grows, the better it will be for use.

Ingredients for a quart.

One quart of water, four ounces of galls, two ounces of copperas, and two ounces of gum, mixed and stirred as above.

To make London Ink-powder.

TAKE ten ounces of the clearest nut-galls, bruise them, and sift the powder very fine, then add white copperas two ounces, Roman vitriol three ounces, gum arabick or sandarack an ounce, bruise and sift them very fine, so that though they appear white, a little being put into water, will in a little time turn it, and an ounce of powder will make a pint of very black ink.

To make Japan or Shining Ink.

TAKE gum arabick and Roman vitriol, of each an ounce, galls well bruised a pound, put them into rape vinegar, or vinegar made of clear small beer; let them remain in a warm place, often stirring, till the liquor becomes black, then add to a gallon, an ounce of ivory black, and a quarter of a pint of seed lac varnish, and it will be a curious black shining ink.

A Powder-Ink to rub on paper, and write on.

BRUISE about twenty nut-galls, and half an ounce of Roman vitriol, as much gum arabick and gum sandarack, mingle these finely together, when well bruised and sifted to a powder, rub the paper hard with it with cotton wool, and polishing it with a piece of ivory, write with water, and in a little time the letters you write will appear a fair black, as if writen with the best ink.

How to make Red Ink.

TAKE three pints of stale beer, (rather than vinegar) and four ounces of ground brazil wood; simmer them together for an hour; then put in four ounces of roch allum; and these three are to simmer together for half an hour; and then strain it thro' a flannel, or, &c. then bottle it up, well stopp'd, for use.

To keep Ink from Freezing or Moulding.

IN hard frosty weather, ink will be apt to freeze; which, if once it doth, it will be good for nothing; for it takes away all its blackness and beauty: to prevent which, (if you have not the conveniency of keeping it warm, or from the cold) put a few drops of brandy, or other spirits, into it, and it will not freeze. And to hinder its moulding, put a little salt therein.

COPIES for WRITING.

Single line COPIES in prose, in an alphabetical Order.

A Wise man's anger is of short continuance.
A custom children to a true notion of things.
Adversity is the touch-stone of friendship.
Approve not of that man who commends all you say.
A flattering companion is a dangerous enemy.
Acept no preferment on dishonourable terms.

B 3

A wife man governs with ease, and is obey'd with pleasure
 A prudent woman sweetens her husband's misfortunes.
 A covetous man is always in want.
 Add to your faith, virtue, and to virtue, knowledge.
 A prudent man values content more than riches.
 A virtuous mind is rather to be chosen than promotion.
 Authority is the main point in government.
 Abstain from all appearance of evil.
 A merry heart maketh a chearful countenance.
 Anger resteth in the bosom of fools.
 A soft answer turneth away wrath.
 Adversity makes a man wise, rather than riches:
 Advice comes too late, when a thing is done.

B.

BE more afraid of secret sins, than open shame.
 Brave spirits promote the public good.
 Be patient in adversity, and humble in prosperity.
 Beauty without virtue is like a painted sepulchre.
 Be less confident and more diligent.
 By learning to obey, you shall know how to command.
 Brave men will do nothing unbecoming themselves.
 By diligence and industry we come to preferment.
 Buy thou the truth, and sell it not.

C.

CONTENTMENT makes a man happy without a fortune.
 Children require instruction as well as provision.
 Commit not that to another, that you can do yourself.
 Custom in infancy, becomes nature in old age.
 Chide him not too much, who confesses his fault.
 Courtesy and humility, are marks of gentility.
 Confession of a fault makes half amends for it.
 Contentment is preferable to riches and honour.
 Consider the shortness of life, and certainty of death.
 Competency with content is a great happiness.

D.

DEATH destroys not the soul; but an ill life does.
 Delight in what you undertake to learn.
 Drinking is the drowning of cares, not the cure of them.

re

I

1

2

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Round Hand

abcdefghijklmnopqrstuvwxy z
A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

He that loveth pleasure shall
be a poor man. he that loveth
wine and oyl shall not be rich.

German Text

abcdefghijklmnopqrstuvwxy z
A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z

abcdefghijklmnopqrstuvwxy z
A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

Speak not in the ears of
a fool for he will despise

Italian Hand

aabcedeffghijklmno pqrstu vwx yz
 A B C D E F G H I J K L M
 N O P Q R S T U V W X Y Z

*Riches are not for ever & doth the
 crown endure to every generation 2*

Engrossing

abcedeffghijklmno pqrstu vwx yz
 A B C D E F G H I J K L M N O P
 Q R S T U V W X Y Z

abcedefghijklmno pqrstu vwx yz
 A B C D E F G H I J K L M N
 O P Q R S T U V W X Y Z

Running hand.

*Fret not thy self because of evil men.
 neither be thou envious.
 Forsake the foolish and live and go in
 the way of understanding*

Do unto others as you would have them do unto you.
 Death will comfortably end a well spent life.
 Devise not evil against thy neighbour.
 Do not render evil for evil unto any man.
 Drunkenness reveals what soberness conceals.
 Do not govern your life by fancy, but by reason.
 Delay in many cases is dangerous.

E.

EVERY delay of repentance is a cheat upon ourselves.

Education is that which makes the man.
 Every prudent man dealth with knowledge.
 Exalt wisdom, and she shall promote thee.
 Ease and honour are seldom bed fellows.
 Evil company makes the good bad, and the bad worse.
 Every idle thought, to judgment must be brought.

F.

FORSAKE the foolish, and go in the way of understanding.

Follow the dictates of reason, and you are safe.
 Forget not God in your mirth, nor yourself in your anger.
 First learn to obey, before you pretend to govern.
 Feed your body as your slave, not as your master.
 Fools make a mock at sin.
 Few do good with what they have gotten ill.
 Future events must be left to providence.
 Frugality and industry are the hands of fortune.

G.

GIVE God the first and last of each day's thought.
 Grieve not for those things which are out of your power.

Great sins require great repentance.
 Good education is the foundation of man's happiness.
 Give as chearfully as you do receive.
 God often corrects us in this life, to save us in the next.
 God is our refuge, a very present help in trouble.
 Good manners, grace and truth, are ornaments in youth.
 Greater profit doth always come of learning than of play.

Good men are safe when wicked men are at odds.

H.

HE that will not work should not eat.
 Happiness is desired by all, but obtained by few.
 He is in some degree wise that conceals his ignorance.
 He that begins well has done half the work.
 Hear both parties before you give judgment.
 He that boasts in his sins, glories in his shame.
 He never wants comfort that has content.
 Hear, ye children, the instruction of a father.
 Hear instruction; be wise, and refuse it not.
 He that sins against conscience, sins with a witness.
 He that swims in sin, must sink in sorrow.

I

IF riches encrease, set not your heart upon them.
 In prosperity prepare for adversity.
 Idleness has no advocate, but many friends.
 It requires as much care to keep, as to get an estate.
 Industry keeps the mind clear, and the body healthy.
 In the multitude of counsellors there is safety.
 Industry is fortune's right hand, and frugality her left.
 Instruction and a good education is a durable portion.
 It is good to have a friend, but bad to need him.

K.

KEEP back thy servant from presumptuous sins.
 Knowledge is the treasure of the mind.
 Know when to speak and when to hold your tongue.
 Keep company with those who may make you better.
 Keep thy tongue a prisoner, that thy body may go free.
 Knowledge puffs up some men, and humbles others.
 Keep thy tongue from evil, and thy lips from guile.
 Keep good company, and you shall be of that number.
 Keep a close mouth, if you would have a wise head.
 Keep at a distance from ill company.
 Kings may win crowns, but cannot conquer death.

L.

LEARNING is the ornament of youth, and comfort
 of age.

Lament not the loss of that which you cannot retrieve.
 Lying lips are an abomination to the Lord.
 Let another man praise thee, and not thy own mouth.
 Love not sleep, lest thou come to poverty.
 Life without a friend, is death with a witness.
 Learn to live as you would wish to die.
 Liberty is grateful to all, but destructive to many.
 Let not the work of the day be put off till to-morrow.

M.

MERCY and truth shall follow them who devise good.

Man has much to learn, but a short while to live.
 Malice seldom wants a mark to shoot at.
 Make provision for want in time of plenty.
 My son, if sinners entice thee, consent thou not.
 My son, gather instruction from thy youth up.
 Many know good, but do not the good they know.
 Many live beggars all their life, that they may not die so.
 Many are led by the ears, more than by the understanding.

Many are made saints on earth, that never reach Heaven.
 Mend your manners, and that will mend your fortune.

N.

NCESSITY is commonly the mother of invention.
 No torments are so great, but patience may vanquish.

Nothing is more contagious than an ill example.
 Not to grow better, is commonly to grow worse.
 No man hath seen God at any time.
 None should cover what cannot possibly be hid.
 Nothing is constant in this uncertain world.
 Nothing is so hard, but diligence may overcome.
 Nature seldom changes with the climate.

O.

OUR life here is but a journey to the next world.
 Of all prodigality, that of time is worst.
 One vice is more expensive than ten virtues.
 One fault cannot justify the commission of another.
 One bad companion may ruin many good men.

Of all poverty, that of the mind is most deplorable.
 Of all things, death should never be forgot.
 Only by pride cometh contention.
 Once well done is twice done.
 On present time depends our future state.
 Other peoples deaths should be memento's to our own.

PROVIDENCE consults our wants, not wantonness.
 Prosperity gains friends, and adversity tries them.
 Passion is a bad counsellor, and as ill a speaker.
 Pride, like a wild horse, overthrows his rider.
 Pursue useful and profitable studies.
 Poverty and shame attend those that refuse instruction.
 Provide against the worst, and hope for the best.
 Poor men want many things, but covetous men all.
 Put not off the main business of life, to the very article
 of death.
 Poor freedom is better than rich slavery.

QUENCH not the spirit; pray without ceasing.
 Quick at meat, quick at work.
 Quench not your desires when they tend to good.
 Quick promisers are slow performers.
 Quietness and content are mates most excellent.
 Quiet men have quiet minds, and enjoy content.
 Quarrellsome persons sometimes meet with their match.

REPENTANCE is the physic of the soul.
 Remember not the sins of thy youth.
 Religion is best understood when most practised.
 Revenge not injuries, but forgive them.
 Reality is now become a great rarity.
 Riches profit not in the Day of wrath.
 Remember thy Creator in the days of thy youth.
 Remember your duty to God, your neighbour, and
 yourself.
 Repent to-day, to-morrow may be too late.

S.

SHAME and disgrace shall be the portion of fools.
 Sin goes before, and shame certainly follows after.
 Silence is an antidote against an envious tongue.
 Saying and doing should be but one man's office.
 Shew me a liar, and I will shew you a thief.
 Sin and sorrow are inseparable companions.
 Soft words sometimes work upon the proudest heart.

T.

THERE are none so poor as those whom God hates.
 The hope of reward sweetens labour.
 To praise yourself is the way to be dispraised.
 The power of example prevails more than precept.
 Truth is ashamed of nothing but to be hid.
 The greatest talkers are always the least doers.
 The worth of a thing is best known by the want of it.
 Those who we'nt 'mend to-day, shall have more work
 to-morrow.
 The doing nothing is very near doing evil.
 To do good is the way to find it.
 Time, and tide, will for no man stay.

U.

USE soft words and hard arguments.
 Unlawful love ends generally in bitterness.
 Unto the upright there arises light in darkness.
 Undertake deliberately, and execute vigorously.
 Unsanctified prosperity is the base of virtue.
 Unto thee will I cry, O Lord, be not silent to me.
 Unwillingly go to law, and willingly make an end.

V.

VIRTUE is commended of all, but followed by few.
 Value not yourself by other mens opinion.
 Virtue often suffers, when vice goes unpunished.
 Valour can do little without discretion.
 Virtue to noblest acts the mind inclines.
 Variety is the beauty of the world.
 Virtue is first to be sought, and money next.

W.

WISE men keep their expences short of their income.
 Whatever is forbid in act, is also in thought.
 Wicked practices discover bad principles.
 Would you be wise, endeavour to be good.
 Wisdom to the mind, is like health to the body.
 We must not blame fortune for our own faults.
 Would you be rich, be industrious; if wise, be studious,
 Where there is no fault, there needs no pardon.
 When passion rides then give reason the reins.
 Weight and measure takes away strife.

X.

XERXES wept at the thoughts that his vast army
 would be dead in a 100 years.
Xenophon accounted the wise man happy.
Xenophon was a learned general.
Xerxes whipt the sea, because it would not obey his
 command.
Xerxes wept at the changeable state of man.

Y.

YOUNG men, see that you honour the aged.
 Youth is full of disorder, and age of infirmity.
 You may know men by the company they keep.
 Young men go to death, but death goes to old men.
 Young men in strength should provide against age and
 weakness.
 Your vice, and not poverty, is your shame.
 You must crack the shell, before you can have the ker-
 nel.
 Yield quietly to what must come unavoidably.

Z.

ZEALOUSLY strive for an eternal crown.
 Zeal grounded on knowledge enlivens devotion.
 Zeal for religion cannot warrant revenge.
 Zeal in a good cause, commands applause.
 Zeal without knowledge is but religious wild-fire.
 Zeal, if not rightly directed, is very pernicious.

AS you expect that Men should deal by you,
 So deal by them, and give each Man his Due.
 Better it is to gain great Reputation,
 Than heap up Wealth with Trouble and Vexation.
 Constraint in all Things makes the Pleasure less :
 Sweet is the Love that comes with Willingness.
 Despair of nothing that you would attain :
 Unweary'd Diligence your Point will gain.
 Experience best is gain'd without much Cost :
 Read Men and Books ; then practise what thou know'st
 Fortune may sometimes prove true Virtue's Foe,
 But cannot work her utter Overthrow.
 Greatness in Virtue only's understood :
 None's truly great, that is not truly good.
 Honour's a God, that none but Fools adore :
 The Wise have nobler Happiness in Store.
 If all Mankind would live in mutual Love,
 This World would much resemble that above.
 Kingdoms, like private Persons, have their Fate,
 Sometimes in high, sometimes in low Estate.
 Let each Man follow close his proper Trade,
 And all Affairs will soon be better made.
 Men's Phancies vary strangely, like their Faces,
 What one commends, another Man disgraces.
 Number itself is at a Loss to guess
 Th' Endurance of our future Happiness.
 Oh ! that the Sons of Men would once be wise,
 And learn eternal Happiness to prize !
 Pray thou to God, that he may be inclin'd
 To grant thee Health of Body and of Mind.
 Quarrellsome Brawling, Gaming, Fuddling shun :
 Thrice happy they, that ne'er such Courses run.
 Remember, Time will come, when we must give
 Account to God, how we on Earth do live.
 Some Men get Riches, yet are always poor ;
 Some get no Riches, yet have all Things store.
 They that are proud, and other Men disdain,
 Do often meet with Hate and Scorn again.
 Virtue is prais'd, but little practis'd by us :
 So loose the Age, that few are truly pious.
 What's human Life ? a Day, a Race, a Span,
 A Point, a Bubble, Froth : So vain is Man.

Xenophilus did well in Health abide
 One hundred seven Years, and then he dy'd.
 Young Men, take Pains, be brisk, and I'll engage;
 Your youthful Pains will Pleasure yield in Age.
Zaleucus made his Laws so strict, that those,
 Who acted Whoredom, both their Eyes should lose.



Of the POINTS, or STOPS, and other MARKS used in writing and reading; with their characters, places, and signification.

THE stops are used to shew what distance of time must be observed in reading: and they are so absolutely necessary to the better understanding of what we write, and read, that without a strict attention to them, all writing would be confus'd, and liable to many misconstructions.

Stops, considered as intervals in reading, are but four, viz. *comma*, *semicolon*, *colon*, and *period*, or *full stop*: and these bear a kind of musical proportion of time one to another: for a *comma* stops the reader's voice, while he may privately, with deliberation tell one; the *semicolon*, two; the *colon*, three; and the *period*, four.

Their characters are thus.

Comma (,) a circular dash at the foot of a word.

Semicolon (;) a point over the comma.

Colon (:) two points.

Period (.) a single point at the foot of a word.

But if a question be asked, there's a circular stroke upon a short line put over the period, and 'tis called an *interrogation*; thus (?).

If a sudden wondering be expressed, then a straight line is placed over the period, and 'tis called a note of *admiration*; thus (!).

If one sentence be enclosed within another, of which it is no part, then 'tis put between two large half circles

called *parenthesis*, thus, (), and, in reading, this doth something lower the tone of the voice, as a thing, that comes in by the bye, interrupting the main coherence of the period, and restraining it from being taken in so large a sense as it might otherwise bear. Each part of it is equal in time to a comma.

These, that follow, are the most usual marks in writing.

Accent (') being placed over a vowel, notes, that the tone, or stress of the voice in pronouncing, is upon that syllable.

Apostrophe (') a comma at the head of letters, denotes some letter, or letters, left out for quicker pronunciation; as *I'll* for *I will*; *wou'd'st*, for *would'st*; *Shan't*, for *shall not*; *ne'er*, for *never*.

Asperism (*) a star, guides to some remark in the margin, or at the foot of the page. Several of them set together signify, that there is something wanting, defective, or immodest in that passage of the author.

Breve (~) is a crooked mark over a vowel, and denotes that it is sounded quick or short.

Caret (^) is placed underneath the line, and denotes, that some letter, word, or sentence is left out by mistake, and must be taken in exactly where it points.

Circumflex (^) is the same in shape as caret, but is always placed over some vowel of a word, to denote a long syllable, as, *Eu-phra-tes*.

Dieresis (") is two points placed over two vowels of a word, that would otherways make a diphthong, and parts 'em in two several syllables.

Hyphen (-) is a straight mark across, which, being set at the end of a line, denotes, that the syllables of a word are parted, and that the remainder of it is at the beginning of the next line.

Here note, that whenever a word is thus parted, the syllables must be carefully separated by the rules of spelling.

'Tis used also to join, or compound, two words into one; as, *ale-house*, *inn-keeper*.

Being placed over a vowel it is not then properly called a *hyphen*, but a *dash*, which in writing signifies the omission of *m* or *n*; as, *nothing is more commendable*.

thā fair writing; for, nothing is more commendable than fair writing.

Index (☞) the forefinger pointing, signifies that passage to be very remarkable, against which 'tis placed.

Obelisk (†) is used as well as the asterism *, to refer the reader to the margin. In dictionaries it commonly denotes a word to be obsolete, or less in use.

Paragraph (¶) or division, comprehends several sentences under one head, or subject.

Parenthesis [] or brackets, include words or sentences of the same value and signification with those they are joined to, which may used in their stead.

Quotation (") or a double comma reverse, at the beginning of a line, shews a passage quoted out of an author in his own words.

Section (§) or division, is used in subdividing of a chapter, or book, into lesser parts or portions.



ABBREVIATIONS.

Abbreviations, are very necessary for dispatch of business. For by them, we expeditiously express, or set down a long word shortening it, by making some initial letter, or letters, belonging to the word, to express it; as in the Table following.

<i>A. B.</i> <i>artium baccalaureus</i> , or bachelor of arts	<i>Ap.</i> apostle
<i>Abp.</i> archbishop	<i>Adml.</i> admiral
<i>Acct.</i> account	<i>Agt.</i> against
<i>A. D.</i> <i>anno Domini</i> , or the year of our Lord	<i>Amot.</i> amount
<i>A. M.</i> <i>anno mundi</i> , or the year of the world	<i>Aug.</i> August
<i>Admsr.</i> administrators	<i>A. R.</i> <i>anno regni</i> , or in the year of the reign
<i>A. M.</i> <i>artium magister</i> , or master of arts	<i>B. A.</i> bachelor of arts
<i>Ana.</i> of each a like quantity	<i>B. D.</i> bachelor of divinity
	<i>B. V.</i> blessed virgin
	<i>Bart.</i> baronet
	<i>Bp.</i> bishop

C. chapter	Knt. knight
Cant. Canterbury	L. <i>libra</i> , or pounds
Cent. <i>centum</i> , or hundred	Lient. lieutenant
Chan. chancellor	L. L. D. <i>legum doctor</i> , or doctor of laws
Chap. chapter	Mar. March
Capt. captain	M. A. master of arts
Cl. <i>clericus</i> , or clerk	Maj. Majesty
Co. company	Monf. Monsieur
Col. Colossians, colonel	Mr. Master
Comrs. commissioners	Mrs. mistress
Con. Constance	M. D. <i>medicinae doctor</i> , or doctor of physic
Cr. creditor	M. S. <i>memoriae sacrum</i> , or sacred to the memory; also manuscript
C. C. C. <i>corpus Christi</i> col- lege	N. note
C. S. <i>custos sigilli</i> , or the keeper of the seal	N. B. <i>nota bene</i> , note, mark well, or observe
C. P. S. <i>custos privitatis si-</i> <i>gilli</i> , or keeper of the privy seal.	N. S. new stile
Dr. doctor, or debtor	No. number
Do. ditto	n. l. <i>non liquet</i> , or it does not appear
D. <i>denarii</i> , or pence	Nov. or 9ber, November
Dec. or xber, or 10ber, December	Obj. objection
Devon. Devonshire	O. W. old word
Decd. deceased	O. S. old stile
Doct. doctrine	Oct. or 8ber, October
D. D. doctor of divinity	Oxon. Oxford
E. g. <i>exempli grati</i> , or for example	Pd. paid
Esq; esquire	p. <i>per</i> , or by
Exon. Exeter	per ct. <i>per centum</i> , or by the hundred
Feb. February	Parl. parliament
Gent. gentleman	Philom. <i>Philomathes</i> , or lo- ver of learning
Hund. hundred	Philo-math. <i>Philo-mathe-</i> <i>maticus</i> , or a lover of mathematicks
i. e. <i>id est</i> , or that is	P. S. postscript
I. H. S. <i>Iesus hominum</i> <i>salvator</i> , or Jesus Savi- our of men	Q. question
Inst. instant	
Jan. January	
Jno. John	

q. d. <i>quasi dicat</i> , or as if he should say	<i>theologie professor</i> , or professor or doctor of di- vinity
q. l. <i>quantum libet</i> , or as much as you please	The. Theophilus
q. s. <i>quantum sufficit</i> , or a sufficient quantity	Tho: Thomas
qr. quarter, or a farthing	V. verse
Rev. reverend	Viz. <i>videlicet</i> , or to wit, or that is to say
Rob. Robert	Will. or Wm. William
Reg. prof. <i>regus professor</i>	Wp. worship
Rt. Hon. right honourable	Xn. christian
S. A. <i>secundum artem</i> , or according to art	Xt. Christ
St. saint	Xtopher. Christopher
Secl. section	ye. the
Sept. or 7ber, September	yn. then
Serj. serjeant	yo. you
Serv. servant	ym. them
Salop. Shropshire	yt. that
Sr. sir	yr. your
ss. <i>semissis</i> , or half a pound	Z. zeal
S. S. T. P. <i>sacro-sancta</i>	&c. <i>et-cetera</i> , or and the rest, or and such like

*To write on Paper GOLD LETTERS, called
SHELL-GOLD.*

LAY a little leaf gold upon a fine earthen plate, and drop thereon a little clear virgin's honey, then work it up with your clean knife's haft, until it is stiff like unto a paste, which put into an oyster-shell, and do it close; when you are to write with it, put a little gum water on the side of the gold, and mix a little thinly fit for your pen.

How to write Secret Letters.

WRITE what you would have seen on one side of the paper with common ink, and on the other side with milk, that which you would have secret; and when

you would make the same legible, direct your friend to hold that side, which is written with ink, to the fire, and the milky letters will shew bluish on the other side, and easy to be read:

Another way.

YOU must write a letter, that may carry good sense, to your friend, but let the lines be wide asunder: then between these lines write your secret letter, with gall water only, wherein the galls have been infused but a little time; for if after you have written with it, there be any sensible colour left upon the paper, you must throw away the water, and make new; this being dry, and of one colour with the paper, will give no cause of suspicion; and the rather, because the letter purporteth a sufficient sense already. Now for the discovery of it, you must dissolve some copperas in fair water, and with a fine pencil, dipt in the copperas water, you must moisten the interlining of your letter, and thereby you shall make it legible.

How to write both Blue and Red Letters at once, with the same ink and pen, and upon the same paper.

PUT the quantity of a hazel nut of litmose blue to three spoonfuls of conduit water, wherein some gum-arabick is dissolved; and when it hath settled the space of an hour, if you write therewith, you shall have perfect blue letters: and if you dip a pencil in the juice of lemons, and wet some part of the paper therewith, and afterwards let your paper dry again, and then write upon the place where the juice of the lemon was laid, with your blue ink, the letters will suddenly become red, and in all the rest of the paper, the letters will be blue.



A Poem in praise of the invention of Writing.

BLEST be the man! his memory at least,
 Who found the art, thus to unfold his breast;
 And taught succeeding times an easy way,
 Their secret thoughts by letters to convey;
 To baffle absence, and secure delight,
 Which till that time was limited to sight.
 The parting farewel spoke, the last adieu,
 The less'ning distance past, the loss of view,
 The friend was gone which some kind moments gave,
 And absence separated like the grave.
 When for a wife the youthful patriarch sent,
 The camels, jewels, and the steward went,
 And wealthy equipage, tho' grave and slow,
 But not a line that might the lover show,
 The ring and bracelets woo'd her hands and arms,
 But had she known of melting words the charms
 That under secret seals in ambush lie,
 To catch the soul, when drawn into the eye,
 The fair *Affyrian* had not took his guide,
 Nor her soft heart in chains of pearls been ty'd.



LETTERS *on* Compliment, Business,
 and several other Occasions.

I Here present you with a collection of useful letters
 on such subjects as may naturally occur to a young
 man, both before, and at his first setting out in the
 world; which, if read attentively, and copied careful-
 ly, will soon correct his orthography, amend his man-
 ner of writing, and serve him to form a tolerable stile.

L E T T E R
*From a Father to his Son, on his keeping bad company,
 bad hours, &c. in his apprenticeship.*

Dear Son,

I Am very much concerned to hear, that you are of late fallen into bad company; that you keep bad hours, and give great uneasiness to your master, and break the rules of his family; that when he expostulates with you on this occasion, you return pert and bold answers; and, instead of promising or endeavouring to amend, repeat the offence; and have entered into clubs and societies of young fellows, who set at nought all good example, and make such persons as would do their duty, the subject of their ridicule, as persons of narrow minds, and who want the courage to do as they do.

Let me, on this occasion, expostulate with you, and set before you the evil of the way you are in.

In the first place: What can you mean by breaking the rules of a family you had bound yourself by contract to observe? Do you think it is honest, to break thro' engagements into which you have so solemnly entered; and which are no less the rules of the corporation you are to be one day free of, than those of a private family?—Seven years, several of which are elapsed, are not so long a term, but that you may see it determined before you are overfit to be trusted with your own conduct; twenty-one or twenty-two years of age is full early for a young man to be his own master, whatever you may think; and you may surely stay till then, at least, to chuse your own hours, and your own company; and, I fear, as you go on, if you do not mend your ways, your discretion will not then do credit to your choice. Remember, you have no time you can call your own, during the continuance of your contract; and must you abuse your master in a double sense; rob him of his time, especially if any of it be hours of business; rob him of his rest; then break peace in his family; and give a bad example to others; and all for what?

why, to riot in the company of a set of persons, who condemn, as they teach you to do, all order and discipline; who, in all likelihood, will lead you into gaming, drinking, swearing, and even more dangerous vices, to the unhinging of your mind from your business, which must be your future support.

Consider, I exhort you, in time, to what these courses may lead you. Consider the affliction you will give to all your friends, by your continuance in them. Lay together the substance of the conversation that passes in a whole evening, with your frothy companions, after you are come from them; and reflect what solid truth, what useful lesson, worthy of being inculcated in your future life, that whole evening has afforded you; and consider, whether it is worth breaking thro' all rule and order for? — whether your present conduct is such as you would allow in a servant of your own? whether you are so capable to pursue your business with that ardour and delight next morning, as if you had not drank, or kept bad hours, over night? if not whether your master has not a double loss and damage from your misspent evenings? whether the taking of small liberties, as you may think them, leads not on to greater? for, let me tell you, you will not find it in your power to stop when you will; and then, whether any restraint at all will not in time be irksome to you?

I have gone through the like servitude with pleasure and credit. I found myself my own master full soon for my discretion; what you think of yourself I know not; but I wish you may do as well for your own interest, and reputation too, as I have done for mine; and I'll assure you, I should not have thought it either creditable or honest to do as you do. I could have stood the laugh of an hundred such vain companions as you chuse, for being too narrow minded to break through all moral obligations to my master, in order to shew the bravery of a bad heart, and what an abandon'd mind dar'd to perpetrate. A bad beginning seldom makes a good ending. and if you were assured that you could stop when you came for yourself, which is very improbable, how will you answer it to equity and good conscience, that you will do so for your master? There is, let me tell

you, more true bravery of mind in forbearing to do an injury, than in giving offence.

You are now at an age when you should study to improve, not divert, your faculties. You should now lay in a fund of knowledge, that in time, when ripened by experience, may make you a worthy member of the commonwealth. Do you think you have nothing to learn, either as to your business, or as to forming of your mind? would it not be much better to chuse the silent the sober conversation of books, than of such companions as never read or think; an author never communicates any but his best thoughts to paper; but what can you expect from the laughing noisy company you keep, but frothy prate, indigested notions, and thoughts so unworthy of being remember'd, that it is the greatest kindness to forget them?

Let me intreat you then, my dear son, for your family's sake, or for your own sake, before it be too late, to reflect, as you ought, upon the course you are enter'd into. By applying yourself to books, instead of such vain company, you will be qualified in time for the best of company, and to be respected by all ranks of men. This will keep you out of unnecessary expences, will employ all your leisure time, will exclude a world of temptations, and open and enlarge your notions of men and things, and, finally, set you above that wretched company which now you seem so much delighted with. And one thing let me recommend to you, that you keep a list of the young men of your standing within the compass of your knowledge, and for the next seven years, observe what fate will attend them; see, if those who follow not the course you are so lately entered into, will not appear in a very different light from those who do; and from the industry and prosperity of the one, and the decay or failure of the other (if their vain ways do not blast them before, or as soon as they begin the world) you'll find abundant reason every day to justify the truth of the observations I have thrown together. As nothing but my affection for you could possibly influence me to these expostulations, I hope for a proper effect from them, if you would be thought well of by, or expect any favour from,

Your loving father.

Your master will, at my request, send me word of the success of my remonstrances.

L E T T E R II.

Advice from an uncle to a young beginner, &c.

Dear Thomas,

AS you are now entering into the world, and will probably have considerable dealings in your business, the frequent occasions you will have for advice from others, will make you desirous of singling out among your most intimate acquaintance, one or two whom you would view in the light of friends.

In the choice of these your utmost care and caution will be necessary; for by a little mistake here you can scarcely conceive the fatal effects you may hereafter experience; wherefore it will be proper for you to make a judgment of those who are fit to be your advisers, by the conduct they have observed in their own affairs, and the reputation they bear in the world. For he who has by his own indiscretions undone himself is much siter to be set up for a land-mark for a prudent mariner to shun his courses, than an example to follow.

Old age is generally slow and heavy, youth headstrong and precipitate; but there are old men who are full of vivacity, and young men replenished with discretion; which makes me rather point out the conduct than the age of persons with whom you should chuse to associate; tho' after all, it is a never failing good sign to me of prudence and virtue in a young man, when his seniors chuse his company, and he delights in theirs.

Let your endeavours therefore be, at all adventures, to consort yourself with men of sobriety, good sense and virtue; for the proverb is an unerring one, that says, *A man is known by the company he keeps.* If such men you can single out, while you improve by their conversation, you will benefit by their advice; and be sure remember one thing, that tho' you must be frank and unreserved in delivering your sentiments, when occasions offer, yet that you be much readier to hear than speak; for to this

purpose it has been significantly observed, that nature has given a man two ears, and but one tongue. Lay in therefore by observation, and a modest silence, such a store of ideas, that you may, at their time of life, make no worse figure than they do; and endeavour to benefit yourself rather by other peoples ills than your own. How must those young men expose themselves to the contempt and ridicule of their seniors, who, having seen little or nothing of the world, are continually shutting out by open mouths, and closed ears, all possibility of instruction, and making vain the principal end of conversation, which is improvement. A silent young man makes generally a wise old one, and never fails of being respected by the best and most prudent men. When therefore you come among strangers, hear every one speak before you deliver your own sentiments; by this means you will judge of the merit and capacities of your company, and avoid exposing yourself, as I have known many do, by shooting out hasty and inconsiderate bolts, which they would have been glad to recal, when perhaps a silent genius in company has burst out upon them with such observations, as have struck consciousness and shame into the forward speaker, if he has not been quite of inward reproach.

I have thrown together, as they occurred, a few thoughts, which may suffice for the present to shew my care and concern for your welfare. I hope you will constantly, from time to time, communicate to me whatever you shall think worthy of my notice, or in which my advice may be of use to you. For I have no pleasure in this life equal to that which the happiness of my relations gives me. And of this you may be assured; for I am, and ever must be,

Your loving uncle,

L E T T E R III.

*General rules of conversation, &c. From a Clergyman
to a young Tradesman.*

Dear Henry,

AS I had not an opportunity of saying so much to you as I wished when you were last here; I send this to inform you of some things, in your general conversation, which I think would be proper for you to observe and amend; particularly your excessive itch for talking; which discovers itself alike on all occasions. I have always flattered myself, that you do not want sense; and am willing to hope I have not been deceived: but the dangerous self-sufficiency of most young men seems violently to have seized you, which, I hope, a little reflexion will remove.

The art of rendering yourself agreeable in conversation is worth your serious study; 'tis an advantage few can boast, tho' sought after by all; and nothing is so constant an enemy to success in those who would excel in this art, as the harbouring an opinion of their own proficiency, before they have attained to any tolerable degree of knowledge in what they imagine themselves possessed of. Conversation, where it is rightly managed, must be so conducted as to let each member of the company have a share in the pleasure and applause it affords; if you are six in number, after you have told a story, or made any remark which gives a general satisfaction; you must consider it the right of another to call your attention in his turn; and, unless particularly requested, it betrays a great weakness to follow yourself. No doubt you love to be admired; and have not others the same passion? you believe your wit more brilliant than theirs; are you sure that they are not of the same opinion as to their own? If a man speaks little, you must not from thence conclude him willing to give up every claim to conversable merit; perhaps he cannot sing; but to be sure he is as desirous of having his peculiar humour, or his dry joke, applauded, as you are to

be intreated another song. If he is no mathematician, perhaps he is versed in religious disputation; if he despises plays, he may admire history; though he understands not geography, he may yet know how to describe the humours of mankind; and tho' he pretends not to politics, he may have a turn for some more useful science. When these are considered, if his modesty is great, you cannot oblige him more than by throwing an opportunity in his way to display his capacity on the subject he believes himself most able to handle with advantage; for, in order to support a thorough good humour, a man must be pleased with himself as well as with others. When this is properly taken care of, conversation seldom fails to prove entertaining; and to the neglect of this are owing many of the yawning hours spent in companies composed of men not incapable of behaving agreeably.

The manner of telling a story is also worth your notice; you have known the pleasure of hearing a long one well told; Mr *French* has an admirable talent in this way; but then you must observe, that half the pleasure he gives, arises from his happily avoiding any of the silly digressions, which are the great cause of a story's seeming tedious; you never hear him mingle his relation with, *I remember very well it was the same day that Squire Worthy's son came of age.*— *I bought my bay nag the very day before, at such a fair, being a Friday, that year;*— or, *I can scarce think of it without laughing;*— or, *but, however, as I was saying:*— and a hundred more such dead weights to attention. Nor does he ever praise a story before he relates it; a fatal rock to many a good relation; for when a story wants a preparatory recommendation, it ought not to be told; and even when the relation is possible, the generality of auditors are apt to persuade themselves,

The mountain labours, and a mouse is born.

These are loose and general hints; by a due improvement of them you will find yourself very sensibly grow more and more agreeable wherever you converse. An easy and becoming freedom you already have, and

by the addition of discretion in your use of them, and compliance to others, you will probably succeed in the desire so predominant in you, of being admired by men of sense and judgment. Which will be no small pleasure to,

Your sincere friend,

L E T T E R IV.

A young man in business, to a father, desiring leave to address his daughter.

S I R,

I HOPE the justness of my intentions will excuse the freedom of these few lines, whereby I am to acquaint you of the great affection and esteem I have for your daughter. I would not, Sir, offer at any indirect address, that should have the least appearance of inconsistency with her duty to you and my honourable views to her; chusing, by your influence, if I may approve myself to you worthy of that honour, to commend myself to her approbation. You are not insensible, Sir, by the credit I have hitherto preserved in the world, of my ability, by God's blessing, to make her happy; and this the rather emboldens me to request the favour of an evening's conversation with you at your first convenience, when I will more fully explain myself, as I earnestly hope to your satisfaction, and take my encouragement or discouragement from your own mouth. I am, Sir, mean time, with great respect,

Your most obedient humble servant,

L E T T E R V.

From a young lady to her father, acquainting him with a proposal of marriage made to her.

Honoured Sir, *Canterbury, June 10.*

I THINK it my duty to acquaint you, that a gentleman of this town, by name Mr. *Truslove*, and by business a linen-draper, has made some overtures to

my cousin *Telltruth*, in the way of courtship to me. My cousin has brought him once or twice into my company, which he could not well decline doing, because he has dealings with him, and has an high opinion of him and his circumstances. He has been set up four years, and has very good business, and lives in credit and fashion. He is about twenty nine years old, and a likely man enough; he seems not to want sense or manners; and is come of a good family. He has broke his mind to me, and boasts how well he can maintain me; but, I assure you, Sir, I have given him no encouragement; and told him that I had no thoughts of changing my condition, yet awhile; and should never think of it but in obedience to my parents; and I desired him to talk no more on that subject to me. Yet he resolves to persevere, and pretends extraordinary affection and esteem. I would not, Sir, by any means, omit to acquaint you with the beginning of an affair that would be want of duty in me to conceal from you, and shew a guilt and disobedience unworthy of the kind indulgence and affection you have always shewn to, Sir,

Your most dutiful daughter.

My humble duty to my honoured mother, love to my brothers and sisters; and respects to all friends. Cousin *Telltruth*, and his wife and sister, desire their kind respects. I cannot speak enough of their civility to me.

L E T T E R VI

The young gentleman's letter to the father, apprising him of his affection for his daughter.

S I R,

Canterbury, June 12.

I TAKE the liberty, though personally unknown to you, to declare the great value and affection I have for your worthy daughter, whom I have had the honour to see at my good friend Mr *Telltruth's*. I should think myself intirely unworthy of her favour, and of your approbation, if I could have a thought of influencing her

resolution but in obedience to your pleasure; as I should on such a supposition, offer an injury likewise to that prudence in herself, which, I flatter myself, is not the least of her amiable perfections. If I might have the honour of your countenance, Sir, on this occasion, I would open myself and circumstances to you, in that frank and honest manner which should convince you of the sincerity of my affection for your daughter; and at the same time of the honourableness of my intentions. In the mean time, I will in general say, that I have been set up in my business, in the linen drapery way, upwards of four years; that I have a very good trade for the time; that I had 2000*l.* to begin with, which I have improved to 2500*l.* as I am ready to make appear to your satisfaction; that I am descended of a creditable family; have done nothing to stain my character; and that my trade is still farther improvable, as I shall, I hope, enlarge my bottom. This, Sir, I thought but honest and fair to acquaint you with, that you might know something of a person, who sues to you for your countenance, and that of your good lady, in an affair that I hope may prove one day the greatest happiness of my life; as it must be, if I can be blessed with that, and your dear daughter's approbation. In hope of which, and the favour of a line, I take the liberty to subscribe myself, good Sir,

Your most obedient humble servant.

L E T T E R VII.

From a country chapman beginning trade, to a city dealer, offering his correspondence.

S I R,

Leeds, Oct. 20.

THE time of my apprenticeship with Mr. Trusty, of this town, being expired, I am just going to begin for myself in *Wakefield*, having taken a shop there for that purpose. And as I know the satisfaction you always gave to my master in your dealings, I make an offer to you of my correspondence, in expectation that you will use me as well as you have done him, in what-

ever I may write to you for. And this I the rather expect, as you cannot disoblige Mr Trusly by it, because of the distance I shall be from him; and I shall endeavour to give you equal content with regard to my payments, &c. Your speedy answer, whether or no, you are disposed to accept of the offer, will oblige

Your humble servant.

L E T T E R VIII:

From a father to a son, to dissuade him from the vice of drinking to excess.

My dear son,

IT is with a grief proportioned to my love, which is extreme, that I understand you have of late neglected your studies, and given yourself up to the odious vice of drinking: what shall I say, what shall I do, to engage you to quit this pernicious practice, before it becomes such a habit, that it will be impossible, or at least very difficult for you to cast it off? Let me require, let me intreat you, to give a suitable attention to what I have to say on this head, which I shall offer rather as a warm friend, than an angry father; and as I address myself to your reason, I will leave it to yourself to judge of the truth of the observations I have to make to you.

In the first place, with respect to health, the greatest jewel of this life, it is the most destructive of all vices: *vertigoes, asthma's, palsies, gouts, apoplexies, cholicks, fevers, consumptions, dropsies, stone, and hypochondriack diseases,* are naturally introduced by excessive drinking.

All the rest of the vices together, are not so often punished with sudden death as this one: what fatal accidents, what quarrels, what breaches between friend and friend, are owing to it!

Then, in the second place; How does it deface reason, destroy all the tender impulses of nature, make a wise man a fool, and subject persons of the brightest parts to the contempt of the weakest, and even, in time, extinguish those shining qualities which constitute the difference between a man of sense and a blockhead!

For, as a certain very eminent author very well observes, fools have generally stronger nerves, and less volatile spirits, than men of fine understandings; that which will rouse the one, will make the other either stupid or frantick; and tho' it sometimes, while the fit continues, strengthens the imagination, yet it always depresses the judgment; and, after the fit is over, both those faculties languish together, till, in time, it quenches the imagination, impairs the memory, and drowns the judgment.

Most other vices are compatible, as the same author observes, with several virtues; but drunkenness runs counter to all the duties of life. A great drinker can hardly be either a good husband, a good father, a good son, a good brother, or a good friend: it lays him open to the worst company, and his company frequently subjects him to lewd women, gaming, quarrels, riots, and often murders. All other vices, even, the greatest of vices, as ambition, unchastity, bigotry, avarice, hypocrisy, detest this unnatural and worse than beastly vice; for the beasts themselves, even the uncleanest of them, know nothing of it, much less practise it.

Other vices, indeed, make men worse, says this judicious author; but this alters men from themselves, to that degree, that they differ not more from their present companions, than from their former selves. A habitude of it will make the prudent inconsiderate, the ambitious indolent, the active idle, and the industrious slothful; so that their affairs are ruined for want of application, or by being intrusted in the hands of those who turn them wholly to their advantage, and, in the end, to the ruin of those who employ them.

I have written a long letter already: yet have I still more to say; which, that I may not tire you, I will leave to another opportunity.

Your most indulgent father.

L E T T E R IX.

*From an apprentice to his master, begging forgiveness
for a great misdemeanor.*

Good Sir,

I Am so ashamed of myself for the last occasion I have given you to be angry with me, after my repeated promises of amendment, that I have not the courage to speak to you. I therefore take this method of begging you to forgive what is past; and let this letter testify against me, if ever I wilfully or knowingly offend again for the future. You have children of your own. They may possibly offend; tho' I hope they never will as I have done. Yet, Sir, would you not wish they might meet with pardon, if they should, rather than reprobation?—My making or my ruin, I am sensible, lies in your breast. If you will not forgive me, sad will be the consequence to me, I doubt. If you do, you may save a soul, as well as a body, from misery; and I hope, Sir, you will weigh this with your usual goodness and consideration. What is past, I cannot help; but for what is to come, I do promise, if God gives me health and power, that my actions shall testify for me how much I am, good Sir,

Your repentant and obliged servant.

L E T T E R X.

The master's answer.

Robert,

YOur letter has affected me so much, that I am willing once more to pass over all you have done. Surely I may at last depend on these your solemn assurances, and, as I hope, deep contrition. If not, be it as you say, and let your letter testify against you for your ingrateful baseness; and for me, in my readiness (which

however shall be the last time) to forgive one that has been so much used to promise, and so little to perform: But I yet hope for better, because I yet wish you well; being as you use me,

Yours or otherwise.

L E T T E R XI.

From an apprentice, where the master is too remiss in his own affairs.

Honoured Sir and Madam,

YOU desire to know how I go on in my business. I must needs say, very well in the main; for my master leaves every thing, in a manner, to me. I wish he did not, for his own sake. For though I hope he will never suffer on the account of any wilful remissness or negligence, much less want of fidelity, in me, yet his affairs do not go on so well as if he was more in them, and less in the tavern. But it becomes not me to reflect upon my master, especially as what I may write or say on this head, will rather expose his failings, than do him service: for as they must be his equals that should reprove him, so all a servant can observe to others will do more harm than good to him. One thing is at present in my own power, and that is, to double my diligence, that his family suffer as little as possible by his remissness. And another, I hope, by God's grace, will be, and that is, to avoid in myself, when my time comes, those failings which I see so blameable in him. And as this will be benefiting properly by the example (for that bee must be worse than a drone, that cannot draw honey from a bitter as well as a sweet flower) so it will give you the pleasure of knowing, that your good instructions are not thrown away upon me, and that I am, and ever will be,

Your dutiful son

L E T T E R XIII.

To a country correspondent, modestly requesting a balance of accounts between them.

S I R,

I Find myself constrained, by a present exigence, to beg you to balance the accompt between us. Though matters have run into some length, yet would I not have apply'd to you, had I known so well how to answer my pressing occasions any other way. If it suits you not to pay the whole, I beg, Sir, you would remit me as much towards it as you can, without prejudice to your own affairs; and it will extremely oblige me. *Your most humble servant.*

L E T T E R XIV.

In answer to the preceding.

S I R, I Am very glad I have it in my power to send you now, directly, one hundred pounds, on accompt between us, which I do by our carrier, who will pay you in specie. I will soon remit you the balance of your whole demand, and am only sorry that I gave occasion for this application for what is so justly your due. When I send you the rest, which will be in a few days, if I am not greatly disappointed, I will accompany it with an order, which will begin a new debt; but which I hope to be more punctual in discharging, than I have been in the last. I am, very sincerely,

Your friend and servant.

L E T T E R XIV.

A gentleman to a lady, professing an aversion to the tedious forms of courtship.

Dear Madam,

I Remember that one of the ancients, in describing a youth in love, says, he has neither wisdom enough to speak, nor to hold his tongue. If this be a just description, the sincerity of my passion will admit of no dispute: and whenever, in your company, I behave like a fool, forget not that you are answerable for my incapacity. Having made bold to declare thus much, I must presume to say, that a favourable reception of this will, I am certain, make me more worthy of your notice; but your disdain would be what I believe myself incapable ever to surmount. To try by idle fallacies, and airy compliments, to prevail on your judgment, is a folly for any man to attempt who knows you. No, madam, your good sense and endowments have raised you far above the necessity of practising the mean artifices which prevail upon the less deserving of your sex; you are not to be so lightly deceived; and if you were, give me leave to say, I should not think you deserving of the trouble that would attend such an attempt.

This, I must own, is no fashionable letter from one who, I am sure, loves up to the greatest hero of romance: but as I would hope, that the happiness I sue for, should be lasting, it is certainly most eligible to take no step to procure it but what will bear reflexion; for I should be happy to see you mine, when we have both out-lived the taste for every thing that has not virtue and reason to support it. I am, Madam, notwithstanding this unpolished address,

Your most respectful admirer, and obedient servant.

L E T T E R XV.

To a friend, who had promised to lend a sum of money, to answer a critical exigence, and drove it off to the last.

Dear Sir,

YOU were so kind as to tell me, a fortnight ago, that you would lend me one hundred pounds on my bond, to answer a demand that my credit would be otherwise a sufferer by. And you were pleased to say, you would have me look no further, and that I should certainly have it in time. I have looked no further, Sir; and the day of payment approaching, you cannot imagine how my mind has suffered by being not absolutely sure of having the money to answer the demand. I hope, Sir, nothing has happen'd to make you alter your mind; for, at this short notice, I shall not know to whom to apply to raise it. In the utmost perturbation of mind, for fear of the worst, my credit being wholly at stake, I beg your answer, which I hope will be to the satisfaction of, Sir,

Your obliged humble servant.

L E T T E R XVI.

The answer, excusing the pain he had given his friend by his remissness.

Dear Sir,

I Will attend you this afternoon with the money, which I had always great pleasure in the thought of supplying you with; and I am most heartily vexed with myself, for giving you the pain and uneasiness that must have attended a mind so punctual as yours, and in a case so critically circumstanced. But I hope you'll forgive me though I can hardly forgive myself. I am, Sir, as well on this, as on any other occasion in my power,

Your sincere friend and servant.

L E T T E R XVII.

*A sailor to his betrothed mistress.**My dear Peggy,**Barbadoes, Oct. 9.*

IF you think of me half so often as I do of you, it will be every hour, for you are never out of my thoughts; and, when I am asleep, I constantly dream of my dear *Peggy*. I wear my half bit of gold always at my heart, tied to a blue ribband round my neck; for *true blue*, my dearest love, is the colour of colours to me. Where, my dearest, do you put yours? I hope you are careful of it: for it would be a bad omen to lose it.

I hope you hold in the same mind still, my dearest dear; for God will never bless you, if you break the vows you have made to me. As to your ever faithful *Andrew*, I would sooner have my heart torn from my breast, than it should harbour a wish for any other woman besides my *Peggy*. O my dearest love! you are the joy of my life: my thoughts are all of you; you are with me in all I do; and my hope and my wishes are only to be yours. God send it may so.

Our captain talks of sailing soon for *England*; and then, and then, my dearest *Peggy*! — O how I rejoice, how my heart beats with delight, that makes me I cannot tell how, when I think of arriving in *England*, and joining hands with my *Peggy*, as we have hearts before, I hope: I am sure, I speak for one.

John Arthur, in the good ship *George*, Capt. *Plowsea*, which is returning to *England* (as I hope we shall soon) promises to deliver this into your own dear hand; and he will bring you, too, six bottles of citron-water, as a token of my love. It is fit for the finest ladies' taste, it is so good, and is what they say ladies drink, when they can get it.

John says, he will have one sweet kiss of my dearest *Peggy*, for his care and pains. So let him, my best love; for I am not of a jealous temper. I have a better opinion of my dearest, than so. — But, oh, that I was in his place! — One kiss should not serve my turn,

though I hope it may his. Yet, if he takes two, I'll forgive him; one for me, and one for himself. For I love *John* dearly, and so you may think. Well, what shall I say more? — Or, rather, what shall I say next? — For I have an hundred things crowding in upon me, when I write to my dearest; and, alas, one has so few opportunities! But yet I must leave off; for I have written to the bottom of my paper. Love then to all friends, and duty to both our mothers, concludes me

Your lover till death.

L E T T E R XVIII.

Her answer.

Dear Andrew,

FOR so I may call you now we are sure; and so my mother says. This is to let you know, that nothing shall prevail upon me to alter my promise made to you, when we parted, with heavy hearts enough, that's true; and yet I had a little inclining given me, that Mr. *Plank's* son the carpenter would be glad to make love to me: but do you think I would suffer it, no, indeed; for I doubt not your loyalty to me; and do you think I will not be as loyal to you? — To be sure I will. *These sailors run such sad chances*, said one that you and I both know. *They may return, and they may not*. Well, I will trust in God for that, who has returned safe to his friends, their dear *Andrew*, so many a time, and often. *They will have a mistress in every land they come to*, said they. All are not such naughty men, said I; and I'll trust *Andrew* Trusty all the world over. For why cannot men be as faithful as women too? and for me, I am sure no love shall ever touch my heart but yours.

God send us a happy meeting! Let who will speak against sailors, they are the glory and the safe-guard of the land; and what would have become of *Old England* long ago but for them? I am sure the lazy, good-for-nothing land-lubbers would never have protected us from our cruel foes. So sailors are and ever shall be,

esteemed by me ; and, of all sailors, my dear *Andrew Trusly*. Believe this truth from

Your faithful, &c.

P. S. I had this letter writ in readiness to send you, as I had an opportunity. And the captain's lady undertakes to send it with hers. That is very kind and condescending. Is it not ?

L E T T E R XIX.

Of Congratulation.

S I R,

DO not admire that I am one of the last, that congratulate with you, your good fortune : the joy which I conceived was so extreme, that it could afford me no sooner the liberty to acquit myself. I know the most of your friends have prevented me, but being their satisfaction is small, I do not wonder if their diligence be the greater. As for my part, my idleness increaseth my merit, since stay and protraction proceeded only from the excess of the gladness of,

S I R,

Your most humble servant,

Tom. Joyful.

L E T T E R XX.

ANSWER.

S I R,

SINCE you take part in the good fortune, which has befallen me, you must also participate in the advantage of the new credit, which it has brought me into. This I advertise you of, to the end, that you let not any occasion slip, wherein you may procure a proof of my friendship, nor forget this advice, which I give you; for believe me, I am impatient to have an opportunity of shewing you how much I am,

S I R,

Your friend and servant,

Timothy Grateful.

L E T T E R XXI.

Of thanks, &c.

S I R,

I Received the favour of yours with a kind of presents; and know not indeed at this time any other way to shew my gratitude, than by my hearty thanks for the same. Every thing you do carries a charm with it, your manner of doing it is as agreeable as the thing done. In short, Sir, my heart is full, and would overflow in your praise, did I not stop, and subscribe myself

Your most obliged,

May 13th, }
1757. }

And obedient humble servant,

Thomas Thankful.

L E T T E R XXII.

Requiring the payment of money, which serves for an acquittance.

S I R,

I Find, upon stating the accompt between you and me, that several considerable sums of money are due to me from you; wherefore having occasion for thirty pounds, I desire you to send it me by the bearer hereof, (or here name the carrier) and in so doing you will very much oblige me.

As to the payment thereof, this letter, and the bearer's acquittance, shall be your sufficient security and discharge for so much money. In witness whereof, I have hereunto set my hand, the 6th day of May, 1757.

John Tradewell

L E T T E R XXIII.

ANSWER.

S I R,

I Send by the bearer (or the carrier) thirty pounds according to your desire, and have taken his receipt for it; but, because you know I send but for small parcels of goods at a time, therefore I desire you always

for the future, when I send you money, that you mention in the acquittances the names of the goods for which you received the money, or at least I would have you to mention what money remains unpaid; for thro' want of such certain knowledge, some poor country tradesmen have found great loss, either by the master, or their apprentices receiving the money sent, and not mentioning for what goods. Pray take it not ill that I thus write, for I am satisfied of your honest dealing; but know not the servants you intrust to receive the money, I send in small parcels. I rest

Your friend and chapman,
James Punctual.

L E T T E R XXIV.

From a servant in his master's absence to one of his country customers.

Mr. Thomas Merchant,

S I R,

London, Jan. 12. 1757.

I Received yours, and for answer say, I am very sorry to hear that the goods have not answered your expectations; however, have placed them to the credit of your account, and returned others in their stead by Robert Derham the carrier. I know my master would willingly oblige you in any thing in his power, and as his faithful servant I have herein done my utmost to give you satisfaction, who am

To Mr. Tho. Merchant,
clothier in Halifax.

Your most humble servant,
James Windsor.



L E T T E R XXV.

From a youth at school in Durham to his parents in London.

Durham, January, 6. 1757.

Honoured father and mother,

I Received your kind letter of the 24th of November past, and also the several things therein mentioned, by the *Newcastle* waggon, for which I return you my most humble and hearty thanks, they coming very seasonably for the relief of my occasions.—I begin to make pretty good improvement in my learning now (tho', at first it seemed a little irksome and hard) and I hope to gain the point at last for which you sent me hither. Pray accept of my most humble duty to yourselves, and give my kind love to my brothers and sisters, and to my old play-fellows and neighbours; this being all at present from,

Honoured parents,

Your dutiful son,

Peter Wise.

L L T T E R XXVI.

From an apprentice to his friends.

Honoured father and mother,

BY these I let you know, that by your good care and conduct I am well settled, and pleased with my station, and could not but in duty return you my hearty thanks in a grateful acknowledgment of your love and tender care of me: I will endeavour to go through my business chearfully; and having begun well, I hope I shall persevere to do so to the end, that I may be a comfort to you hereafter, and in some measure make a return of your love and kindness to me, who am

Your most dutiful and obedient son and servant,

Jeremiah Careful.

L E T T E R XXVII.

Of recommendation.

S I R,

THE bearer hereof, *James Roberts*, I send to you, as one whose honesty you may rely on, and my experience of his conduct and fidelity give me a certain kind of confidence in recommending him to you; but you know me, Sir, and I believe you cannot in the least think that I would recommend any one to you, if I had the least umbrage of suspicion or doubt concerning their probity. *I am, Sir,*

Your real friend and humble servant,

James Goodman.

L E T T E R XXVIII.

*To a country chapman.*Mr. *James Tradewell*,

S I R,

London, Dec. 8. 1757.

YOU and I have formerly had trading together, and it is not my fault that we do not continue so to do; for assure yourself, I have a great value and respect for you, and on that account none shall be more ready to oblige you in what I may; and pray let us once more re-assume our dealing together, and you shall find, that for any goods you have occasion for in my way, none shall use you more kindly than,

S I R,

Your real friend, and humble servant,

George Punctual.

L E T T E R XXIX.

By way of petition.

Honoured Sir,

I Am uncertain whether my late misfortunes have come to your knowledge; however, I most humbly pre-

sume on your good nature, being assured by sundry examples of your compassion, that you will think of, and take pity on the distressed: therefore, as an object truly deserving compassion, I most humbly implore and petition you to consider the many losses and disappointments, that I have met with in my wayward and unlucky fortune, which have reduced me to such necessitous circumstances, that I cannot possibly proceed in my affairs: you was pleased once to stile me your friend, and so I was indeed; and so I would certainly do now, and shew it by a signal proof of kindness, if our circumstances were changed, by standing between you and misfortune, and screening you from the malevolent and inauspicious influences of cross grained stars. I doubt not, Sir, but your generosity and goodness is as great: and I hope with all humility, you will be pleased to interpose your good offices, &c. between unlucky fortune, and,

S I R,

Your very humble servant,

George Shipwreck.

L E T T E R X X X .

To a friend, to desire him to endeavour to end a difference.

Loving Cousin,

AFTER my love to you, this is to let you know, that two of your friends D. N. and J. E. are going to law upon a trifling occasion. I pray come over and see to reconcile them, or send your advice how I may labour to do it, and I shall be very much obliged to you. I remain

Your affectionate kinsman and humble servant,

G. T.

L E T T E R XXXI.

*The answer, with advice.**Dear friend,*

WITH my unfeigned love to you, I received your letter, and it grieves me to hear that our friends should be for going to law, and not compelled to it; for then much money is spent upon lawyers, to end their differences by jury-men, when two friends may do it better.

But if one of the parties is for going to law, and the other not, then he that is against going to law is the most christian, and is not to be blamed, tho' he use the law of the nation to defend himself; neither, indeed, can he avoid it, if his adversary seeks revenge, and so forces him to spend his money in his defence.

But you desiring my advice about reconciling these two friends, they having not yet feed lawyers, persuade the man that is for going to law, that two friends chosen by both parties may end their differences, or one person only.

And when they have nominated two to end it, then persuade the two parties to put into the hands of those arbitrators, 5*l.* or more a-piece, according to the value of the trespass. This agreed on, next,

Let the parties sign and seal general releases to each other; then the arbitrators must dispose of the money as they see good, to the party, that received the wrong, &c.

Thus differences among friends may be composed at a much cheaper and better rate than by trial at the assizes.

But yet 'tis best, when contending parties agree by themselves, as Christ commands (*Mat.* xviii. 15.) and forgive trespasses (*Mat.* iv. 12.)

Besides this, having general releases, it cuts off all former differences, and saves from divers expences, and from bonds of arbitration and awards, which, tho' they cost money, often prove of no effect.

Would to God the advice above, of reconciling men at difference, would take effect in general, then would peace flourish, &c.

I remain your friend,

Jerem. Peaceable.

L E T T E R XXXII.

From a gentleman to a gentlewoman, to beg pardon for an offence.

Madam,

TIS in vain to contend with my judge; and therefore, though I know my fault has been aggravated beyond what it could justly bear, yet I will rather submit myself to your sentence than go about to extenuate my crime: I am guilty enough that I have offended you, though I never designed it; and when you have done yourself justice, by inflicting upon me what you think I merit for my offence, then I will plead my innocency, and let you know I always was so far from saying any thing that might reflect upon your fame, that in my opinion, not innocence itself is more unspotted, nor can unfully'd snow appear more white: 'tis true, I am guilty to give you ground to think I have offended; but my offence is my misfortune, rather than my fault. But, Madam, what if I appeal from your severer justice to your mercy? I know you are not inexorable, nor did you suck the breasts of wolves and tygers; and since there's so much sweetness in your eyes, those words must be some pity in your heart, at least so far as to forgive a poor repenting criminal. And since you are such a bright idea of the author of all goodness, you cannot but, like him, delight in shewing mercy. I shall henceforth endeavour to be like *Cæsar's* wife, not only free from guilt, but from suspicion: and further, shall, to expiate my offence, remain

Your truly sorrowful,

And much afflicted humble servant,

Roger Begpardon.

L E T T E R XXXIII.

ANSWER.

S I R,

I Received your letter, and must let you know, that whatsoever reflects upon my fame, (which is far dearer to me than my life) tho' at the most remote distance, is what I cannot but think a fault, and therefore know not how you can be innocent; and, Indeed, to plead your innocence, is to accuse me of injustice, in charging you with a crime: but, from what you write, I am inclined to believe, that in what you said, you designed no injury to me; and that it was a crime of inadvertence rather than of malice. And for that reason, upon your profession of repentance, I freely pardon you; but charity itself does not enjoin me to hug the man I pardon in my bosom: you must not expect therefore to be admitted to the former freedoms you enjoy'd, since you have made so ill an use of 'em) till you have given some more substantial proofs of the sincerity of your repentance. And tho' I pardon this your first offence, yet if you should relapse into your former follies, you must expect a much severer treatment: for then I shall no more esteem myself, as I now do,

Your reconciled friend to serve you,

Sarah Forgiwell.

L E T T E R XXXIV.

From a gentleman to his mistress, who seeing no hopes of success, respectfully withdraws his suit.

MADAM,

I make no doubt but this will be the welcomest letter that you ever received from me; for it comes to assure you, that it is the last trouble you will ever have from me. Nor should I have so long withheld from you this satisfaction, had not the hope your brother gave me, that in time I might meet with a happier fate, made me willing to try every way to obtain your fa-

your. But I see, all the hopes given me by his kind consideration for me, and those that my own presumption have made me entertain, are all in vain: and I will therefore rid you off so troublesome an importuner, having nothing to offer now but my ardent wishes for your happiness; and these, Madam, I will pursue you with to my life's latest date.

May you, whenever you shall change your condition, meet with a heart as passionately, and as sincerely devoted to you as mine: and may you be happy for many, very many years, in the man you can honour with your love: for, give me leave to say, Madam, that in this, my end will be in part answered, because it was most sincerely your happiness I had in view, as well as my own, when I presumptuously hoped, by contributing to the one, to secure the other. I am, Madam, with the highest veneration, your most obedient humble servant;

LETTER XXXV.

From a father to a daughter in service, on hearing of her master's attempting her virtue.

My dear daughter,

I Understand, with great grief of heart, that your master has made some attempts on your virtue, and yet that you stay with him. God grant that you have not already yielded to his base desires. For when once a person has so far forgotten what belongs to himself, or his character, as to make such an attempt, the very continuance with him, and in his power, and under the same roof, is an encouragement for him to prosecute his designs. And if he carries it better, and more civil at present, it is only the more certainly to undo you when he attacks you next. Consider, my dear child, your reputation is all you have to trust to. And if you have not already, which God forbid! yielded to him, leave it

not to the hazard of another temptation; but come away directly (as you ought to have done on your own motion) at the command of

Your grieved and indulgent father.

LETTER XXXVI.

The daughter's answer.

Honoured Sir,

I Received your letter yesterday, and am sorry I stay-
ed a moment in my master's house after his vile at-
tempt. But he was so full of his promises of never of-
fering the like again, that I hoped I might believe him;
nor have I yet seen any thing to the contrary: but am
so much convinced, that I ought to have done as you
say, that I have this day left the house; and hope to
be with you soon after you will have received this let-
ter. I am,

Your dutiful daughter.





Precedents in LAW and BUSINESS, that all young men ought to know and be acquainted with.

Supercriptions for Letters.

To the king, or, To the king's most excellent majesty.

To the queen, or, To the queen's most excellent majesty.

To the prince, or, To his royal highness. To the princess, or, To her royal highness.

And in case of the lords spiritual, viz. To his grace the lord archbishop of Canterbury; To the right reverend father in God, &c. The same to the archbishop of York. If to the other bishops, To the right reverend father in God, Archibald lord bishop of, &c. And to the inferior clergy, To the reverend doctor, &c. To the reverend Mrs &c.

To write to temporal lords, viz.

To his grace the duke of—

To the right honourable the marquis of—

To the right honourable the earl of—

To the right honourable the lord viscount—

To the right honourable the lord—

All the sons of the nobility, though not the immediate heirs, are also dignified with the title of honourable, as their due by birth-right. And to a knight and baronet by virtue of his patent, the title of honourable and right worshipful is given. As likewise the former to a knight, and worshipful to an esquire.

Every privy-counsellor, though not a nobleman is styled right honourable: all ambassadors have the title of excellency, as likewise both the lord lieutenant of Ireland, and the captain general of his majesty's forces when he being, nor but the lord mayor of London, during his mayoralty, a less title than right honourable; and the sheriff, during their office are styled right worshipful.

nor does any thing less than the title of esquire extend to the mayors of any corporation during their office.

Directions for the beginning of Letters.

To the king, Sir, or, May it please your majesty.
To the queen, Madam, or, May it please your majesty.

To the prince, Sir, or, May it please your royal highness.

To a duke, My lord, or, May it please your grace.

To a dutchess, Madam, or may it please your grace.

To a marquiss, My lord, or, May it please your lordship.

To a marchioness, Madam, or, may it please your ladyship.

To an earl, viscount, or baron, Right honourable, or, May it please your lordship. In viscount or viscountess found not the *v* in the first syllable.

To a countess, viscountess, or baroness, Madam, or, Right honourable, or, May it please your ladyship.

To a knight, Sir, or, Right Worshipful, and to his lady, Madam, or, May it please your ladyship.

To a mayor, justice of peace, esquire, &c. Sir, or, May it please your worship.

At subscribing your name end with the same title you began with. As, My lord, Your lordship, &c.



OF WILLS and TESTAMENTS.

A WILL, according to the common acceptation, is the declaration of a person's mind or intent, in relation to what he would have done after his death. The common law calls that a will, whereby lands and tenements are devised; but when it concerns only chattels, viz. Moveables or what is not inheritable, it is called a testament; where lands are given by will, it is termed a

devise; and where goods and chattels, commonly termed a personal estate, are bequeathed, it is called a legacy.

Devises of lands, &c. must be in writing, signed by the devisor or person giving, generally called the testator, or some person by his express direction, in the presence of three credible witnesses. If a personal estate of above the value of thirty pounds be bequeathed by word of mouth, which the law calls a nuncupative will, it must be likewise done in the presence of three witnesses.

FORM of a WILL.

IN the name of God, Amen. I, A. B. of, &c. being thro' the abundant mercy and goodness of God, tho' weak in body, yet of a sound and perfect understanding and memory, do constitute this my last will and testament, and desire it to be received by all as such: *imprimis*, I most humbly bequeath my soul to God, my Maker, beseeching his most gracious acceptance of it, thro' the all sufficient merits and mediation of my most compassionate Redeemer, Jesus Christ, who gave himself to be an atonement for my sins, and is able to save, to the uttermost, all that come unto God by him, seeing he ever liveth to make intercession for them, and who, I trust, will not reject me, a returning penitent sinner, when I come to him for mercy; in this hope and confidence, I render up my soul with comfort, humbly beseeching the most blessed and glorious Trinity, one God most holy, most merciful and gracious, to prepare me for the time of my dissolution, and then to take me to himself into that peace and rest, and incomparable felicity, which he has prepared for those that love and fear his holy name, Amen, blessed be God. *Imprimis*, I give my body to the earth, from whence it was taken, in full assurance of its resurrection from thence at the last day: as for my burial, I desire it may be decent, without pomp, or state, at the discretion of my dear wife, and my executors hereafter named, who, I doubt not, will manage it with all requisite prudence. As to my worldly estate, I will and positively order, That all my debts be paid. *Item*, I give to my dear and loving wife, for term of life, this house wherein I now dwell, with all the

furniture, and the lands and tenements that ly about it; and after her death, to my only son *G.* and his heirs and assigns for ever; to whom I leave also, from the time of my death, my other two estates situate in the parish of *T.* he paying to each of his sisters, *D.* and *F.* 5000 *l.* And if he die before them; and without issue, then his land (all but the value of 5000 *l.* which, I freely empower him to dispose of as he shall think fit) shall descend, and belong equally to those my two daughters. My poor debtors, who owe me some small matters, which because they are in low condition, and not well able to pay them. I freely remit them all, forgiving such my debtors, as I desire God should forgive my debts for Christ's sake. I give 60*l.* to be distributed according to the discretion of my executors, among such of my neighbours of this parish, as they shall apprehend most to want such assistance, but who do not at present receive alms, nor have any allowance from the parish. I give 30*l.* towards the good work for teaching poor children to read, and to say their catechism, in charity schools. The small remainder of my estate I give to my very good friends, and dear and kind relations, *G. R.* and *L. O.* to be divided equally between them: and do constitute them executors of this my last will and testament, and trustees for my wife and children. In witness whereof, I have hereunto set my hand and seal, the 3d day of *June*, in the year of our Lord, 1755.

Witness, *T. B.*
R. T.
R. B.

A. B. (L. S.) here I take off my seal, and do declare this to be my last will and testament.

Another WILL.

IN the name of God, *Amen.* I, *A. M.* of, &c. being in perfect health (praised be God) do make this my last will and testament as followeth. *Imprimis,* I give to my daughter *L. M.* 20 pounds of, &c. *Item,* I give to my daughter *C. M.* 50 pounds of like lawful money, and the box in the room where I ly, marked (*P. Q.*) and all the linen therein, with some other goods and the rest and residue of my goods and chattels, and personal estate, after payment of my debts, legacies, and

funeral expences; and unto my son S. M. whom I make sole executor of this my last will and testament, I give, demise, and bequeath to him and his heirs, all, and every my messuages, lands, tenements, and hereditaments whatsoever and wheresoever, which I also charge with the payment of my said legacies. In witness whereof, I have hereunto set my hand and seal, the 19th day of July, and in the year of our Lord, 1755.

Sealed, published, and declared by the above named A. M. for and as his last will and testament, in the presence of us, A. B. G. D. E. F.

Observations concerning wills and testaments.

THE party who signs, and seals a will, is to do it in the presence of three witnesses, who are to set their hands to it (not under three), and it is not much matter whether the witnesses hear the will read or no, so as they hear the party say he acknowledgeth that writing to be his will, to which he sets his hand and seal; for if they did hear it read, it cannot be supposed that they can remember the contents thereof. A man above fourteen years of age may make a will of his goods, and a woman above twelve: but neither can will their lands until twenty one years.

If a man dies without a will, and leaves both free-lands and goods, his wife will have the third part of the profits of the land, during her life, and the third part of the goods for ever; and the next of kin to the husband the other two third parts. But he that makes a will, and leaves his wife a certain sum to be paid her yearly, during her life, by his executor should also give her some of his moveable goods.

If a man dies without a will signed, and sealed, leaving many children, the eldest son claims all the land; but, if he leaves daughters only, they will be co-heirs to all free-land.

Copy-hold land is not given by will, but passed by surrender in court.

To will land to E. F. for ever ; or to G. H. and his assigns this is but for life ; but I give and demise unto E. F. his heirs and assigns for ever, so G. H. may sell it.

The word executor, is the name given to him that is to see the will performed ; but if it be a woman, she is called in the will executrix.

Set your house in order while you are in health.

For a (will) testament is of force after men are dead,

Heb. ix. 17. but not before.

For if a man hath sealed his will and delivered it to a friend to keep, he may make another, which makes the other will void.

The FORM of a LETTER of ATTORNEY, to execute a particular business.

K NOW all man by these presents, that I, *AB*, of *C*, in the county of *D*, yeoman, for divers good causes and considerations, me hereunto moving, have made, ordained, constituted, and appointed, and by these presents, do make, ordain, constitute, and appoint my trusty friend *IK*, of *M*, gent. my true and lawful attorney, for me, in my name, and to my use, to ask, demand, recover and receive of, and from *BC*, of, &c. the sum of, &c. giving, and by these presents, granting to my said attorney, my sole and full power, and authority, to take, pursue, and follow such legal courses for the recovery, receiving, and obtaining of the same, as I myself might or could do, were I personally present ; and upon the receipt of the same, acquittances, or other sufficient discharges for me, and in my name, to make, sign, seal and deliver ; as also one or more attorney or attorneys under him to substitute and appoint, and again at his pleasure to revoke ; and farther to do, perform and finish for me, and in my name, all and singular thing or things, which shall or may be necessary, touching and concerning the premises, as fully, thoroughly, and entirely, as I the said *AB*, in my own person might, or could do, in or about the same ; ratifying, allowing, and confirming whatsoever my said attorney shall lawfully do, or cause, to be done, in and

about the execution of the premises, by virtue of these presents. In witness whereof, I have hereunto set my hand and seal, the 12th day of *September*, in the 30th year of the reign of our sovereign lord *George II* by the grace of God king of *Great-Britain*, &c. and in the year of our Lord 1757.

Revocation of a Letter of Attorney.

K NOW all men by these presents, that whereas I — of — in the county of —, yeoman, upon the trust and confidence which I had in — of —, gent, by letter of attorney under my hand and seal, bearing date —, did make, ordain, constitute, and appoint the said — my lawful attorney, for me, and in my name, and to my use, to ask, demand, recover and receive, of and from —, of — bookfeller, the sum of —, as thereby more at large may appear: now know ye, that I the said —, for divers good causes and considerations me hereunto moving, have and by these presents do revoke, disannul and make void the said letter of attorney, and all power and authority, therein to him the said — given. In witness, &c.

INDENTURE for an APPRENTICE.

T HIS indenture witnesseth, that — son of —, &c. doth put himself apprentice to —, shoe maker, to learn his art or mystery, and with him after the manner of an apprentice to serve from the day of the date hereof for and during the term of seven years next ensuing; during all which term, the said apprentice, his said master faithfully shall serve, his secrets keep, and all his lawful commands every where gladly do; he shall do no damage to his said master, nor see it to be done by others, without letting or giving notice thereof to his said master; he shall not waste his master's goods, nor lend them unlawfully to any. He shall not commit fornication, nor contract matrimony during the said term; he shall not play at cards, dice, or any other unlawful game; whereby his master may be damaged, with

his own goods, nor the goods of others; he shall not absent himself day or night from his said master's service unlawfully; nor haunt ale-houses, taverns, or play-houses; but in all things behave himself as a faithful apprentice, in the trade or mystery he now followeth; and the said master shall procure and provide for him sufficient meat, drink, apparel, lodging, washing and all other necessities, during the said term. And for the true performance of all and every the said covenants and agreements, either of the said parties bindeth himself unto the other firmly by these presents. In witness whereof, they have interchangeably set there hands and seals hereunto, this twentieth day of September. In the 30th year of the reign of our sovereign lord *George II. king of Great Britain, France and Ireland, &c.* and in the year of our Lord, 1757.

Letter of Attorney from a Seaman.

KNOW all men by these presents, That I, ———, mariner, now belonging to his majesty's ship the *Ann*, for divers good causes and considerations me hereunto moving, have, and by these presents do make, ordain, constitute and appoint my trusty friend ———, citizen and baker of *Bristol*, my true and lawful attorney for me, and in my name, and for my use, to ask, demand, and receive of and from the right honourable the treasurer, or pay-master of his majesty's navy, and commissioners for prize-money, and whom else it may concern; as well all such wages, and pay, bounty-money, prize-money, and all other sum and sums of money whatsoever, as now are, and which hereafter shall or may be due or payable unto me; also all such pensions, salaries, smart-money, and all other monies and things whatsoever, which now, or at any time hereafter is, or shall be due to me for my service, or otherways in any of his majesty's ship or ships, frigates or vessels: giving and hereby granting unto my said attorney full and whole power to take, pursue, and follow such legal ways and courses for the recovery, obtaining, and discharging the said sum and sums of money, or any of them, as I myself might, or could do, were I personally present. And I do hereby ratify, allow, and confirm all and whatsoever

ver my said attorney shall lawfully do, or cause to be done, in and about the execution of the premises, by virtue of these presents. In witness, &c.

A BOND.

K NOW all men by these presents, That I, (*Robert Scott*, in the county of *Durham*, merchant) am held, and firmly bound unto (*James Syms of Doncaster*, in the county of *York*, Esq;) in the sum of (*Two hundred*) pounds of good and lawful money of *Great Britain*, to be paid to the said (*James Syms*) his heirs, executors, administrators, or assigns: to which payment, well and truly to be made, I bind myself, my heirs, executors, administrators, or assigns, firmly by these presents. Sealed with my seal. Dated the (*first day of June*) in the 30th year of the reign of our sovereign lord (*George the second*) by the grace of God, king of *Great Britain, France and Ireland*, defender of the faith, and in the year of our Lord God, (*One thousand seven hundred and fifty five*.)

The CONDITION.

THE condition of this obligation is such, that if the above bounden (*Robert Scott*) his heirs, executors or administrators, do well and truly pay, or cause to be paid, unto the above mentioned (*James Syms*) his executors, administrators, or assigns, the full sum of (*one hundred pounds*) with lawful interest for the same, of good and lawful money of *Great Britain*, on the (*first day of January* next) ensuing the date hereof; then this obligation to be void, or else to remain in full force.

Sealed and delivered (being first legally stamped) in presence of *Robert Scott*,
F. G.
H. I.

When a bond is given in consideration of the value received, the bond is always to be made for double the value in the condition.

What is to be varied, and made agreeable to the circumstances before you, is in those words inserted between ().

A Condition to stand to the Award of Arbitrators,

THE condition of this obligation is such, That if the above bounded (*James Sly of Newcastle*, merchant) his heirs, executors, and administrators, and every of them, do and shall in all things, well and truly stand to, obey, abide by, perform, fulfil, and keep the award, order, arbitrament, final end and determination of (*Andrew Mills and James Mills, of Bristol*, merchants) arbitrators indifferently named, elected, and chosen, as well on the part and behalf of the above bounded (*James Sly*) as of the above named (*James Syms*), to arbitrate, award, order, judge, and determine of and concerning all manner of actions, causes, and causes of actions, suits, bills, bonds, specialities, judgments, executions, extents, accompts, debts, dues, sum and sums of money, controversies, trespasses, damages, and demands whatsoever, at any time or times heretofore had, made, moved, brought, commenced, sued, prosecuted, done, suffered, committed, or depending by or between the said parties, so as the award be made, and given up in writing, under their hands and seals ready to be delivered to the said parties on or before the () next ensuing the date above mentioned; but if the said arbitrators do not make such an award, of and concerning the premises, by the time aforesaid; that then if the said (*James Sly*) his heirs, executors, and administrators, for his and their parts and behalf, do in all things well and truly stand to, obey, abide, perform, fulfil, and keep the award, order, arbitrament, umpirage, final end and determination of (*John Jack, of Lincoln, Esq;*) umpire indifferently chosen between the two parties, to end the said matter and differences, so as the said umpire do make his award and umpirage of, and concerning the premises, and deliver the same in writing under his hand and seal, to the said parties, on or before the () day of () next ensuing the date aforesaid; then this obligation to be void, or else to remain in full force.

Scaled and delivered (being
legally stamped) in presence of, &c.

James Sly, (L. S.)

()

Note, Both the parties are in this case to be mutually bound, *mutatis mutandis*; and if there be no umpire admitted of, the latter part of the condition, beginning [But if the said arbiters] is to be omitted.

The Form of an Umpirage of Award.

TO all people, to whom this present writing shall come; I (*John Jack* of *Lincoln*, Esq;) umpire indifferently chosen between (*James Slight*, and *John Fox* of *London*, merchant) send greeting; Now know ye, that I the said (*John Jack*) having deliberately heard, considered, and understood the griefs, allegations, and proofs of both the said parties, and being willing, as much as in me lieth, to set the said parties at unity and good accord, do by these presents, arbitrate, award, order, deem, decree and judge, that the said (*James Slight*) his executors, administrators, or assigns, do, and shall well and truly pay, or cause to be paid unto the said (*John Fox*) his executors, administrators, or assigns, the sum of () of lawful money of *Great Britain*, on the () day of () next ensuing the date of these presents; and that upon payment thereof, the said (*James Slight* and *John Fox*), shall, at their own proper costs and charges, seal, subscribe, and as their several acts and deeds, deliver each to the other, a general release in writing, of all matters, actions, suits, causes of actions, bonds, bills, covenants, controversies, and demands whatsoever, from the beginning of the world to the (sixteenth day of *July* last past) and in the (30th) year of our sovereign lord (*George H.*) king of *Great Britain*, &c. In witness whereof I have hereunto set my hand and seal, the (9th day of *July* 1757).

Sealed and delivered (being duly stamped) in presence of, &c. *John Jack*. [L. S.]

A Letter of Licence to a Debtor.

TO all people, to whom this present writing shall come; we whose names are here under subscribed, and seals affixed, creditors of [*D. F.* of *Bristol*, mer-

chant] send greeting. Whereas the said [D. F.] on the day of the date of these presents, is indebted unto us severally, in divers considerable sums of money, which at present he is not able to satisfy unto us, without respite, and time to be given unto him for the payment thereof; Know ye therefore, That we the said creditors, for divers good causes and considerations, us thereunto moving, have given and granted, and by these presents, do give and grant unto the said [D. F.] our sure and safe conduct, and free licence, that the said [D. F.] shall, and may safely come and go, and resort unto us, and every one of us, his said creditors, to compound and take order with us, and every one of us for all and every of our said debts, and to go about any other business to any other person or persons whatsoever, without any trouble, suit, arrest, attachment, or other molestation to be offered or done to him, the said [D. F.] his wares, goods, monies, or other merchandizes whatsoever, by us, or any of us, or by the heirs, executors, administrators, partners, or assigns of us, or any of us, or by our, or any of our means or procurement, to be sought or procured to be done, from the day of the date hereof, unto the full end and term of [one whole year] next ensuing. And we the said creditors, whose names are here underwritten, do hereby covenant and grant, and every one of us for his own part, his executors and administrators covenanteth and granteth, to and with the said [D. F.] that if any trouble, wrong, damage, or injury shall be done unto him the said [D. F.] either in his body, goods, or chattels, or any of them, within the said term of [one year] next coming after the date hereof, by us, or any of us, his said creditors, or by any other person or persons, by or through the procurement, consent, or knowledge of us, or any of us, contrary to the true intent and meaning of this our present writing of safe conduct, that then the said [D. F.] by virtue of these presents, shall be discharged and acquitted for ever, towards and against him and them, of us, his and our heirs, executors, administrators, partners, or assigns, and every one of them, by whom, and by whose means he shall be arrested, troubled and attached, or damaged, of all manner of actions, suits, quarrels, debts, and de-

mands, either in law or in equity, from the beginning of the world, to the day of the date hereof: in witness whereof, we have hereunto set our hands and seals the [fourth day of July] Anno Domini 1757.

Sealed and delivered (being first duly stamped) in presence of, &c.

A. B. [L. S.]
C. D. [L. S.]
E. F. [L. S.]

A BILL of SALE.

KNOW all persons whom it may concern, That I [John Trader of Kendal, in the county of Westmoreland, weaver] for and in consideration of the sum of [one hundred pounds] of lawful money of Great Britain, so as is hand paid, by [Daniel Dike, of London, Esq.] the receipt whereof I do hereby acknowledge, have bargained, sold, and delivered, and by these presents, according to the due form of law, do bargain, sell, and deliver unto the said [Daniel Dike] four pieces of *Kendal* cotton, one hundred pairs mens hose, fifty womens do, fifty boys do sealed up with my seal. To have and to hold the said bargained premises, unto the said [Daniel Dike] his executors, administrators and assigns for ever. And I the said [John Trader] for myself, my executors and administrators, the said bargained premises unto the said [Daniel Dike] his executors, administrators and assigns, against all persons, shall and will warrant, and for ever defend, by these presents: [If the bargained premises be redeemable, by a limited time, a proviso of this nature is added.] Provided nevertheless, that if I the said [John Trader] my executors, administrators or assigns, or any of us, do and shall well and truly pay, or cause to be paid unto the said [Daniel Dike] his executors, administrators, or assigns, the sum of [One hundred and three pounds] as principal and interest, lawful money of Great Britain, on the [thirtieth of October, next ensuing the date hereof] for redemption of the bargained premises: then this present bill of sale shall be void, and of none effect: but if default be made in the payment of the said [One hundred and three pounds] in part or in the whole, contrary to the manner and form aforesaid, that then it shall remain and be in full force and

virtue: in witness whereof, I have hereunto set my hand and seal, the [twenty ninth day of June] in the year of our Lord [1757].

Sealed and delivered, &c. *John Trader.* [L. S.]

[2. 3.] A general Release, club dail gai

KNOW all men by these presents. That I, (*Thomas Stevens of London, grocer*) have remitted, released, and for ever quitted claim, and by these presents, do for me, my heirs, executors and administrators, remiss, release, and for ever quit claim, unto (*Jeremiah Bucks, citizen and mercer of London*) his heirs, executors and administrators, all and all manner of actions, causes and causes of actions, suits, bills, bonds, writings obligatory, debts, dues, duties, accompts, sum and sums of money, judgments, executions, extents, quarrels, controversies, trespasses, damages and demands whatsoever, both in law and equity, or otherways howsoever, which against the said (*Jeremiah Bucks*) I ever had, now have, and which I, my heirs, executors and administrators, shall or may have, claim, challenge or demand, for or by reason or means of any matter, cause or thing, from the beginning of the world, to the day of the date of these presents: in witness whereof, I have hereunto set my hand and seal, the (*twelfth day of July*) and in the year of our Lord (*1757*)

Signed, sealed and delivered (being first legally stamped) &c. *Thos. Stevens.* [L. S.]

Witness my hand and seal, this 12th day of July, 1757.

Of Messrs. Child and Borden.

I HEREBY declare, that my marriage becomes wholly the property of my wife, together with all her moveable goods, and if goods be given to a married woman, they immediately become her husband's; she cannot sue, sell, give away, or alienate any thing without her husband's consent, neither any property which either her husband or herself possess to the executor or administrators of her husband (excepting her necessary apparel) which, with the consent of her husband, she may give by will, and otherwise by our English laws.

The wife, after her husband's death, having no jointure settled before marriage, may challenge the third part of his yearly rents of free-lands, for her life; and also the thirds of the rents of such free-lands as he sold in his life time, if she did not consent to a fine; but she can claim no thirds of such lands as her husband bought, when he has sold them again, and dieth, if he puts another person's name in the deed, besides himself, when he bought them. But if her husband dieth without a will in writing, leaving no child she will claim the thirds, as above, and the third part of the goods for ever; and the other two thirds go to the next of his kindred.

But if she be the wife of a freeman of the city of London (he dying without a will leaving no child, as before) she will challenge by law, three parts of four of her husband's goods and chattels, and one third of the profits of his free lands for life, the goods for ever. *By a late act of parliament persons since made free are not bound by this law.*

The husband must answer to his wife's faults; if she wrong another by her tongue, or by trespass, he must make satisfaction; and pay the debts that she causeth, except he did before give notice, that they should not trust her. *This is disputable.*

A woman cannot hope to have the thirds of her husband's land, which he mortgaged before marriage, till the money's paid, and the mortgage be cancelled.

A man and wife are joint purchasers of land, to them, and their heirs and the survivors, and heirs; and if the husband dies, the wife may sell the land without the consent of their children.

A woman that kills her husband is to be burnt alive.

If a wife brings forth a child, begotten by another before marriage, but born after marriage, the husband must own the child as heir at law.

A wife cannot be a witness for, or against her husband, they two being but one in law.

If a wife brings forth a child during her husband's long absence, though it be some years, yet if he lived all the time within this island, he must father that child; and if that child be her first-born son, he shall inherit the

husband's estate, if intailed, or left without a will. *This has been lately tried, and decided otherwise.*

A woman that doth not hear of her husband for seven years together, may marry another man.

If a woman have no sons, but daughters, the lands, as well as goods are equally divided among the daughters, who are co-heirs,

Man and wife are so fast joined by our law, that they may not be wholly parted by our law, by any agreement between themselves; but only by the sentence of a proper judge, for adultery, &c.

Of Children, Sons and Daughters.

A Father may give all his estate (not intailed) to any one child, the consideration whereof keeps some children in awe.

A son at the age of 14, may chuse his guardian, be an executor, may consent to marriage (if not an apprentice) may, by will, give his goods and chattles, and become bound in bonds, or covenants for necessaries, food, raiment, schooling, &c.

At the age of 15, he may be sworn to his allegiance to the king.

At 21, he is said to be of full age, may sell land, (which in other countries is not till 25) when the heat of youth is somewhat abated, and they begin to be stayed in mind, as well as in growth.

A daughter at seven years may consent to marry, tho' she may afterwards dissent; at nine she may consent to a jointure.

At 12 she is able to confirm her former consent to marriage, and if at that age she dissent not, she is bound: she may at that age make a will of her goods, and become bound for necessaries, &c.

At 13 she may receive her lands into her own hands, that are given, or fall to her. At 21 she may lett, sell, or will her lands.

The eldest son inherits all his father's lands (if the father died without a will) and to the younger children are disposed goods and chattles, and commonly the eldest son's wife's portion.

If a man marry a wife having free land, and she dieth, leaving a child that is heard to cry, tho' it dieth presently, the man shall have the lands for his life. This is called, *The courtesy of England.*

Of Servants.

ORdinary servants are hired, commonly for a year (whereby they become inhabitants of that parish); at the end thereof, they may be free, (giving three months warning before) and may place themselves with other masters, only it is accounted discourteous and unfriendly, to take another man's servant, before leave given by his master; and indiscreet to hire a servant without a certificate of his diligence, and faithfulness, in the service of his last master, or somewhat to this effect.

Memorandum, That I, G. D. do certify, that J. B. the bearer hereof, hath been an honest and faithful servant unto me. Witness my hand, the 4th of June, 1757.



FORMS of Receipts, Notes and Bills, &c.
necessary to be understood in order to forming the Man of Business.

Various Forms of acquittances, when an apprentice, or servant receives money for the use of his master, or employer, &c.

Rceived the 27th of July, 1757. of Mr Thomas Adams, Nine pounds twelve Shillings, for my mother David Stone, on account,

Per James Thompson.

L. 9 12 0

Received the 6th of September, 1757. of Henry Holland, Fifty eight pounds ten shillings and four pence, in full payment for my master Andrew Jones,

Per Matthew Burns

L. 58 10 04

Received the 24th of August, 1757. of Mr. James Johnson and company, Two hundred pounds, for Mr. Thomas Murphy and partners,

Per Richard Williams.

L. 200 00 00

Received the 20th of February, 1757. of the honourable the United East-India company, Four thousand pounds sixteen shillings and sixpence, for Mr. English and company,

Per Peter Morgan.

L. 4000 16 06

Received the 26th of April, 1757. of the governor and company of the bank of England, Ten thousand fifty pounds eighteen shillings, for Mr. Michael Gaxton and company,

Per Edward Carter,

L. 10050 18 00

Received the 26th of March, 1757. of the worshipful company of mercers, Eighty six pounds for my father Christopher Yates,

Per Edward Yates.

L. 86 00 00

Received the 13th of March, 1757. of Mr. Richard Foxcraft Fifteen pounds, for a quarter's rent due at Christmas last, for my master George Jibbons,

Per Isaac Johnson

L. 15 —

Received the 18th of *June*, 1757. of *Mr. Lewis Armstrong*, Thirty five pounds eight shillings, in part of a bill of One hundred pounds, payable to *Mr. Simon Pare*, or order, due the 10th instant,
Per *George Norton*.

L. 35 08 —

Received the 29th of *February*, 1757. of *Mr. Thomas Laurence*, by order of *Mr. John Kent*, the sum of One hundred and fifty pounds six shillings and ten pence, on account of *Mr. Nathaniel Combs*, of *Appaby*: I say received for my master *John Pye* and partner,
Per *Isaac Taylor*.

L. 150 06 10

Various Forms of Acquittances, upon receipt of money, by masters and men of business themselves.

Received this 6th of *June*, 1757. of *Messrs. John and James Simpson*, Six hundred and forty pounds on accompt,

Per *William Burnet*.

L. 640 00 00

Received the 19th of *July*, 1757. of the right honorable *William Parrot, Esq.* the sum of Three hundred and fifty pounds, in full of all demands for self and company.

Per *George Dawson*.

L. 350 00 00

Received the 17th of *August*, 1757. of *Mr. James Sims*, Thirty pounds, in full for interest of twelve hundred pounds due at *Midsummer* last,

Per *Thomas Luther*.

L. 30 00 00

Received the 19th of *September*, 1757. by the order, and for the use of Mr. *Benjamin Blunt*, of Mr. *Stephen Carr*, Ten pounds ten shillings, and allowed for taxes and repairs, one pound ten, together, the sum of twelve pounds, in full for a quarter's rent, due at *Midsummer* last.

Per *Joseph Rentroll*.

L. 12 — —

Received the 16th of *May*, 1757. of the executors of *James* late earl of *Bath*, by the hands of Mr. *George Thompson*, the sum of Sixty five pounds twelve shillings, in full for my half year's annuity due at *Lady-day* last,

Per *Charles Steward*.

L. 65 — —

Received the 1st of *May*, 1757. of *Robert Pringle*, Esq; and the other owners of the ship the *Berwick*, the sum of One hundred and eight pounds ten shillings, in full for cordage, tackle, and trimming, furnished the said ship.

Per *Andrew Shipwright*.

L. 108 10 —

Promissory Notes by bankers apprentices and servants:

Bristol, March 7th, 1757.

I Promise to pay the honourable *Charles Snell*, Esq; or bearer, on demand, Fifty pounds,

For Sir *Richard Jones* and partners,

Per *Charles Surety*.

L. 50 — —

London, November 26th, 1757.

I promise to pay the royal *African* company, or bearer, on demand, Four thousand six hundred and sixty four pounds thirteen shillings and six pence, for my masters *George and James*,

Per Adam Eve,

L. 4664 13 06

Promissory Notes for a man's self, &c.

I Promise to pay to *Nathaniel Smith*, or bearer, on demand, Nine hundred pounds, *May 20th, 1757.*

Per James Hunt.

L. 900 — —

I promise to pay to the governor and company of the bank of *England*, Ten thousand pounds, value received this 6th of *June, 1757.* for myself and partners,

Per Israel Jack.

L. 10.000 — —

London, August 1st, 1757.

I promise to pay Mr. *Michael Pope*, cashier of his majesty's revenue of excise, or order, forty days after date, Five hundred and thirty pounds, value received,

Per Andrew Cass.

L. 530 — —

I promise to pay to *Peter Paul, Esq;* or order, on demand, Four hundred and ninety pounds, value received this 16th of *March, 1757.*

Per James Vernon.

L. 490 — —

I promise to pay to *Francis Dove, Esq;* or order, the sum of sixty pounds, on demand, after receipt of a bill of exchange drawn the 9th current, by *Humphrey Trade*, on *Henry Henly of Northampton*, mercer, for the like

sum payable to *William Pack, Esq;* or order, which the said *Francis Dove* has indorsed to me, this 24th of December 1757.

Per *James George.*
L. 60 — —

A Bill of Debt.

K NOW all men by these presents, That I *Michael Pool*, of the county of *Durham*, gent. do own and acknowledge myself justly to stand indebted to *Alexander Anderson* of the county of *Tork*, haberdasher, the just sum of twenty four pounds, of good and lawful money of *Great Britain*, and which I do hereby promise to pay unto him the said *Alexander Anderson*, on the 26th day of *August*, next ensuing the date hereof. Witness my hand this 12th day of *June*, in the year of our Lord 1757.

Michael Pool
Another.
M Emorandum, That I *Thomas Bell*, of the parish of *St. Ambrose*, salter, do owe and am indebted to *James Purves* of the said place, mercer, the sum of Sixty pounds of good and lawful money of *Great Britain*, which sum I promise to pay to the said *James Purves*, his executors, administrators, or assigns, on, or before the 12th day of *October* next. In witness whereof, I have herunto set my hand and seal, the 27th day of *May*, in the year of our Lord, 1757.

Thomas Bell. (L. S.)

Signed, sealed, and delivered,

(being first legally stamped)

in presence of *John Jack.*

Michael Oil.

A promissory note, mentioning order, is indorsable from one person to another, which is done by the present possessor's writing his name on the back of it, and delivering it up to the party, to whom he intends to assign over his property therein.

The delivering up a promissory note to the person who signed it, is a sufficient voucher of its being paid, nor is there need of writing a receipt thereon.

Promissory notes, and book debts, if not legally demanded in the space of six years, cannot be recovered by law upon the debtor's pleading the statute, but they are recoverable in chancery.

If you keep a promissory note on demand, in your own hands above three days, and the person it is upon should fail, the loss will be your own; but if he fail within three days, it will light in equity on the person that paid it you.

Promissory Notes.

Borrowed and received of *John Derby, Esq;* Seventy pounds, which I promise to pay to him, or order, on demand. Witness my hand this 29th of September, 1757.

Per Joseph Jones.

L. 70 0 0

Borrowed and received of *Mr. Timothy Trusty*, Thirty pounds, which I promise to pay to him, or order, three months after date. Witness my hand this 14th of August 1757.

Per Roger Dodds

L. 30 0 0

I promise to pay to *James Forrester, Esq;* or order, Two hundred pounds eighteen shillings, on demand, value received. Witness my hand this 17th day of July, 1757.

Per Roger Cook.

L. 200 18 0

N. B. Observe in promissory notes, that the value received is mentioned; or they are of no force.



A R I T H M E T I C.

After you are compleat in writing, you must next proceed to arithmetic, the knowledge of which is so necessary, that scarce any thing in life, and nothing in trade can be done without it.

And first of *notation and numeration*.

In *notation* we must observe that all numbers may be, and now generally are expressed by, or composed of the ten figures or characters following, *viz.*

One, two, three, four, five, six, seven, eight, nine, cypher.
 1 2 3 4 5 6 7 8 9 0

Nine of these are called significant figures, to distinguish them from the cypher, which of itself signifies nothing; but as it is placed (in whole numbers) serves to increase the value of the next figure or figures that stand before it; as 3 is but three: but before the cypher thus, 30, the 3 becomes 30, &c. ——— We are to note, that every one, or any of the above nine figures or digits have two values, one certain and another uncertain: the certain value is, when it stands alone by itself: the uncertain is, when joined or placed with other figures or cyphers: for when any one of these figures stands alone, it signifies no more than its own simple value: as 5 is but five, 4 but four, 6 is but six, and 3 no more than three, &c. And this is the certain value of a figure: but when another figure or cypher is annexed, then they are increased in their value ten times: as 5, or 5 unites, or ones, to five tens, or fifty, 4 to 4 tens, or forty, 6 to 6 tens, or sixty, and 3 to 3 tens, or thirty, as thus, 51, fifty-one: 42, forty-two: 63, sixty-three: 34, thirty-four, &c. Again, if any of the said figures stand in the third place towards the left-hand,

For the easier reading of any number, first get the words at the head of the table by heart; as units, tens, hundreds, thousands, &c. and applied thus, 75, five units, five, and 7 tens, seventy, that is, seventy five. Again, 678; 8 units, eight, 7 tens, seventy; and 6 hundreds, six hundreds; that is, six hundred seventy eight. Once more, 3456; 6 units, six; 5 tens, fifty; 4 hundreds, four hundred; 3 thousands, three thousands; together, three thousand four hundred fifty six. Read the 4th line of the table downwards, viz. 123456789; here the valuation of the figure is from the right hand to the left, as 1 in the ninth place is hundreds of millions, but to be read from the left hand to the right; thus, one hundred twenty three millions, four hundred fifty six thousand, seven hundred eighty nine. But any number may yet be read more intelligibly, viz. by stops, thus; make a comma at every third figure or cypher, beginning at the right hand, and so on towards the left, making a stop after every third figure or cypher, as aforesaid, thereby distinguishing every third place into hundreds, as hundreds of units, hundreds of thousands, hundreds of millions, and hundred thousands of millions, &c. and for tryal let's read the first line of the table; the last place in valuation is hundred thousands of millions, and to be pointed into periods thus, 123,456,789,012; and read thus, one hundred twenty three thousand, four hundred fifty six millions, seven hundred eighty nine thousand and twelve; that is no hundreds, but twelve. Again, read the following number, viz. 276.245.678.921.460; here the first point or period is betwixt 4 and 1, and the last between 2 and 6, and to be read thus; 276 millions of millions, 245 thousands of millions, 678 millions, 921 thousands, 460 units or ones. And thus may any number be read with ease, though a large one; and thus are large numbers or sums expressed, or set out in the exchequer, bank, and lottery tickets, &c. as thus, No. 225,156-----19,478---- and 42,000, &c. the foregoing table of numeration is on the right hand distanced out into periods, for the easier reading thereof.

Numbers to be read and written.

96, Ninety six
 242, Two hundred forty two
 7924, Seven thousand nine hundred 24
 54006, Fifty four thousand and six
 524707, Five hundred twenty four thousand 707
 4606240, Four millions 606 thousand 240
 62700472, Sixty two millions 700 thousand 472
 474960204, Four hun: 74 millions 960 thous. 204
 4214007042, Four thousf. 214 millions 7 thousand 42:
 470706420042, Four hundred and 70 thousand 706 mil-
 lions 420 thousand and 42.

Of numerical letters.

Sometimes numbers are expressed by letters ; especially in the bible, to signify the chapter or psalm ; at the bottom of title pages of books for the date of the year, and frequently in inscriptions on funeral monuments, &c. for which reason 'tis necessary to know how to read them. Therefore observe, that I. stands for 1, or one unit, II. for 2. III. for 3. IV. for 4. V. for 5. VI. for 6. VII. for 7. VIII. for 8. IX. for 9. X. for 10. XI. for 11. XII. for 12. XIII. for 13. XIV. for 14. XV. for 15. XVI. for 16. XVII. for 17. XVIII. for 18. XIX. for 19. XX. for 20. XXI. for 21. &c. XXX. for 30. XXXI. for 31. &c. XL. for 40. XLV. for 45. &c. L. for 50. LI. for 51. &c. LX. for 60. LXI. for 61. &c. LXX. for 70. LXXI. for 71. &c. LXXX. for 80. LXXXI. for 81. &c. XC. for 90. XCI. for 91. &c. C. for 100. CC. for 200. CCC. for 300. CCCC. for 400. D. or 15. for 500. DC. for 600. &c. M. or C1D. for 1000. &c. Thus the present year 1757. is wrote: MDCCLVII.

A.D.DITION.

IS the putting together two or more numbers or sums in order to make them one total, or whole sum.

Here we must always observe to set the numbers to be added, orderly one under the other ; that is, units under units, tens under tens, hundreds under hundreds, &c. as in the subsequent examples.

ARITHMETIC.

Addition of numbers of one denomination.

Yards

Gallons

Pounds

Tens	Units	Hund.	Tens	Units	X th	Thous.	Hund.	Tens	Units
2	4	7	5	6	5	7	7	6	2
4	6	5	3	2	3	9	9	4	4
6	8	4	7	8	6	7	2	2	2
8	2	6	9	6	7	9	6	7	4
2	4	4	2	2	0	2	4	6	2
4	2	6	7	8	0	0	3	9	0
286		3562		247484					

In addition of simple numbers, whether it be *yards, gallons, pounds*, or any thing else, remember to carry 1 for every 10 you find in the row or rank of figures being units to the next row of tens; and the like from the rank of tens to the row of hundreds, &c. and whatever it makes in the last, you must set it down, amount to what it will. Thus:

The numbers above are set down in order, as before directed; that is, units under units, tens under tens, &c. as may be plainly understood, by being indicated at the head of each row or rank with units, tens, hundreds, &c. Then in casting up each example, to know its total, I begin at the right hand, or units rank, of the first example, and say 2 and 4 is 6, and 2 is 8, and 8 is 16, and 6 is 22, and 4 is 26; in which row there are two tens and 6 over; wherefore I set down 6 just under its own rank, and carry 2 to the next or last row, and say, 2 that I carry and four makes 6, and 2 is 8, and 8 is 16, and 6 is 22, and 4 is 26, and 2 is 28; and it being the last row, I set down the amount, viz. 28; so that the total number of *yards* is found to be (by the method) at the bottom 286. And the next, or second example, is found by the same method to be 3562 *gallons*. And in the third and last example, the total number of pounds is found to be 247484, and so the total of any other example of the same kind, viz. simple numbers of one denomination, may be found. Note, that when any of the ranks amount to just 10, 20, 30, 40, 50, &c. then

you must set down the 0, under its proper rank, and carry either 1, 2, 3, 4, or 5, according to the number of tens that you find, to the next row; and so you must always do, when it so happens, whether in the first, second or third row, or in any other except the last, where what it amounts to must be set down without any reserve or carriage in the mind, because there is no other row or rank to carry to, as was hinted before.

Addition of mixed numbers.

Observe, 4 farthings make 1 penny, 12 pence make 1 shilling, 20 shillings make 1 pound sterling.

Libra in *Latin* signifying a pound, *l.* therefore stands for pounds.

Solidus in *Latin* signifying a shilling, *s.* therefore stands for shillings.

Denarius in *Latin* signifying a penny, *d.* therefore stands for pence.

Quadrans in *Latin* signifying a farthing, *q.* therefore stands for farthings.

Observe, that pounds be set directly under pounds, shillings under shillings, pence under pence, and farthings under farthings.

But before you proceed, get this table of pence by heart, thus, 30*d.* is half a crown, then 60*d.* is 5*s.* again 40*d.* is 3*s.* 4*d.* then 80*d.* is 6*s.* 8*d.* again 50*d.* is 4*s.* 2*d.* then 100*d.* is 8*s.* 4*d.* &c. 100 lb. of cheese at 3*d.* the lb. comes to three times 8*s.* 4*d.* or 100 faggots, 120 to the hundred, at 1*d.* a-piece, comes to 10*s.* as in the table.

<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
20	1	8	30	1	10
30	2	6	40	2	00
40	3	4	50	2	10
50	4	2	60	3	00
60	5	0	70	3	10
70	5	10	80	4	00
80	6	8	90	4	10
90	7	6	100	5	00
100	8	4	110	5	10
110	9	2	120	6	00
120	10	0	130	6	10

Then for every crown that a hundred of faggots cost, reckon an half-penny; if the faggot costs me three half-pence, one hundred will cost 15 s. because there is three crowns in it.

Note, That young men may improve themselves very much in reckoning up divers things, after they have by heart the table afore said, and learning this rule of addition.

An hundred yards of tape at one penny the yard, the table tells you comes to 8s. 4d.

An hundred yards of ferreting at one penny half-penny the yard.

In the table 100d. is - - - - 8s. 4d.

And half the sum is - - - - 4s. 2d.

Answer 12s. 6d.

If one pound of any thing costs 7 d. halfpenny, what will 280 lb. weight cost after that rate; performed by addition thus,

	l.	s.	d.
200 sixpences make 100s. or	-	5	-
80 sixpences make	-	2	-
200 pence	-	16	8
80 pence is a noble, or	-	6	8
200 halfpence is 100 pence, or	-	8	4
80 halfpence make 40 groats, or	-	3	4

Price of the goods 8 15 0

Note, Now you have by heart the table of pence, you may cast up any sum of money without dotting, for when you know the number of pence, you may by this table, know how many shillings to carry to the shillings place, and for the number of shillings in the row of shillings you know that 70s. is 3l. 10s.

(10)	(20)	(12)	
1	s.	d.	12 set over the pence, shews that
17	16.	1	for every 12 I find in the pence row,
20	11.	7.	I am to carry 1 to the shillings; for
23	18.	9.	so many 20s. as I find in the shillings
73	17	10	row, 1 to the place of pounds, as a-
			fore said.

But the easiest way of casting up this sum (for the young learner) is by using dots, thus:

136	4	3
-----	---	---

Beginning at the pence; I say 10d. and 9d. is 19d. where against the 9 I set a dot for 12d. (or you may make your dots on waste paper) and what is more or above 12 I carry to the next figure, viz. 7, and it makes 14, where I set a dot also for 12, and carry the remaining 2 to the 1 on the top, which makes 3, which 3d. I set between the lines, as you see in the example.

Next, I look how many dots there are, and find 2, which I carry to the row of shillings, saying, 2 that I carry and 17 is 19, and 18 is 37, where against the 18 I set a dot for 20s. or 1l. and carry the odd 17s. upwards, saying, 17s. I carry and 11 is 28, where I set a dot against the 11 for another 20s. and carry the remaining 8 to the 16 on the top, saying 8 I carry and 16 makes 24s. where I set down a dot for 20s. and set between the lines the remaining 4s. under the row of shillings.

Note, That you may sum up the shillings row without dotting, thus; saying, 2s. I carry from the place of pence, and 7 is 9, and 8 is 17, and 1 is 18, and 6 is 24s. and 10 is 34, and 10 is 44, and 10 is 54, and 10 is 64, that is 3l. 4s. then the 4s. being set between the lines, the 3l. is to be carried to the pounds.

Lastly, The 3 dots for the 3l. found in the place of shillings, I carry to the pounds, saying, 3 that I carry and 3 is 6, and 3 is 9, and 7 on the top makes 16, the remaining 6 I set between the lines, under the first row of the pounds, and I carry 1 to the last row, saying, 1 that I carry, and 7 is 8, and 2 is 10, and 2 is 12, and 1 is 13, which being set between the lines, the whole sum comes to 136l. 4s. 3d.

Note, That when you are to write a bill of several small parcels, begin it in order of pounds, shillings, and pence, 0 - 3 - 9, and when you are to set down 16d. set down 1s. 4d. or to set down 23s. you must set 1l. 3s. 0d.

If a man owes me the three following sums of money, what come they to in the whole?

l. s. d. Note, That the $7\frac{1}{2}d.$ is seven pence halfpenny; and $1\frac{1}{2}d.$ is one penny farthing; and in the total sum between the lines $5\frac{1}{2}d.$ is five pence three farthings.

1812 9 $5\frac{1}{2}$ To cast up the three sums I do thus, the $\frac{1}{2}$ which is the farthing, and the $\frac{1}{4}$ the halfpenny, make $\frac{3}{4}$, or three farthings, which is set between the lines; next $1d.$ and $9d.$ is $10d.$ and $7d.$ is $17d.$ where against the 7 is set a dot for $12d.$ and set the odd $5d.$ between the lines.

Next, I that I carry from the place of pence and $10s.$ is 11 , and 1 is 12 , and $17s.$ is $29s.$ I set down the remaining $9s.$ between the lines, and the $20s.$ making $1l.$ I carry to the place of pounds;

Saying I carry, and 6 is 7 , and 3 is 10 , and 2 is 12 , where I set a dot for 10 , and set the remaining 2 between the lines.

Next, I carry the dot for 10 , as 1 , to the middle row (being all cyphers) it is but 1 still, so I set the 1 under the row of cyphers and proceed to the last row;

Saying, 9 and 7 is 16 , and 2 at the top is 18 , which I set between the lines, and the whole sum comes to $1812l. 9s. 5\frac{1}{2}d.$

Addition of money.

Money owing, and money received, as follows.

(1)				(2)					
	<i>l.</i>	<i>s.</i>	<i>d.</i>		<i>l.</i>	<i>s.</i>	<i>d.</i>		
Owing to	Mr A. B.	4	12	6	Received from	R. B.	46	10	9
	Mr C. D.	7	06	9		R. R.	79	16	0
	Mr E. F.	4	12	0		C. B.	43	18	3
	Mr G. H.	6	17	7		R. C.	66	12	4
	Mr I. K.	5	06	6		C. W.	90	16	0
	Mr L. M.	4	12	3		R. T.	84	13	6
	Mr N. O.	6	00	0		G. H.	24	12	0
	Mr P. Q.	5	15	4		B. G.	60	10	0
		45	02	11			496	12	10

I begin and say, 4 and 3 is seven, and 6 is 13, and 7 is 20, and 9 is 29, and 6 makes 35*d.* now 30*d.* according to the table, is 2*s.* 6*d.* and 5*d.* makes 2*s.* 11*d.* I set down 11 exactly under the rank of pence, and say, 2*s.* that I carry (which I do to the rank of shillings) and 5 is 7, and 2 is 9 (for I only take the unit rank of shillings) and 6 is 15, and 7 makes 22, and 2 is 24, and 6 is 30, and 2 makes 32; and now being come to the top of the sum, and it making 32, I come down with the tens of shillings, saying, 32 and ten is 42, and 10 is 52, and 10 is 62, and 10 is 72, and 10 makes 82*s.* and the table telling me that 80*s.* is 4*l.* I know therefore 82*s.* is 4*l.* 2*s.* wherefore I set down the remaining 2*s.* just under the row of shillings, and carry 4*l.* to the pounds, saying, 4 that I carry, and 5 is 9, and 6 is 15, and 4 is 19, and 5 is 24, and 6 is 30, and 4 is 34, and 7 is 41, and 4 makes 45*l.* so that the total of those several sums of money due to those several persons, amounts to 45*l.* 2*s.* 11*d.* as in the example.

In the second example of money received, I begin at the right hand, and say, 6 and 4 is 10, and 3 is 13, and 9 makes 22, and 22*d.* being 1*s.* 10*d.* I set down 10, and carry 1*s.* to the shillings; saying, 1 that I carry and 2 is 3, and 7 is 10, and 6 is 16, and 2 is 18, and 8 is 26, and 6 makes 32; then I come down with the tens, saying, 32 and 10 makes 42, &c. and I find at the bottom it comes to 112*s.* which making 5*l.* 12*s.* I set down 12*s.* and carry 5*l.* to the pounds, saying, 5 that I carry and 4 is 9, &c. I find at the top it amounts to 36, wherefore I set down 6 exactly under its own rank, *viz.* the rank of units of pounds, and carry 3 for the tens that are in 30 (for at all times in the first denomination of addition, whether of money, weight, or measure; that is in the denomination of pounds, tens, or yards, you must cast them up as sums of one denomination; that is, for every ten carrying one to the next, &c.) saying, 3 that I carry, and 6 is 9, and 2 is 11, and 2 is 19, &c. and I find that at the top it comes to 49; wherefore I set down 49 before the 6; and the total amounts to 496*l.* 12*s.* 10*d.*

A Table of English Coins.

Of Gold.

		l.	s.	d.
A Jacobus,	} Value		- 5	- 0
A Carolus,		1	- 3	- 0
A Guinea,		1	- 1	- 0
A half Guinea,		0	- 10	- 6

Of Silver.

A Crown,	} Value	0	- 5	- 0
A half Crown,		0	- 2	- 6

The names of the rest speak their value, as a shilling, a sixpence, a groat, or 4d, a threepence, a twopence, a penny.

Of Copper.

A Halfpenny,

A Farthing:

Besides the above mentioned, we have still in use the names of some other pieces, which are now but imaginary, viz.

A Mark,	} Value	0	- 13	- 4
An Angel,		0	- 10	- 0
A Noble,		0	- 6	- 8

Of Troy weight.

The least fraction or denomination of weight used in England, is a grain of wheat gathered out of the middle of the ear, and well dried; from whence are produced these following tables of weight, called Troy weight.

32 Grains of wheat	} Make	24 Artificial grains
24 Artificial grains		1 Penny weight
20 Penny weight		1 Ounce
12 Ounces		1 Pound troy weight

And therefore,

lb.	oz.	p. w.	grains.
1	12	20	24
1	12	240	5760
	1	20	480
		1	24

Troy weight serveth to weigh bread, gold, silver and electuaries. It also regulateth and prescribeth a form how to keep the money of *England* at a certain standard. The goldsmiths have divided the ounce troy weight into other parts, which they generally call mark weight. The denominative parts thereof are as followeth, viz. a mark (being an ounce troy) is divided into 24 equal parts, called carects, and each carect into 4 grains; so that in a mark are 96 grains. By this weight they distinguish the different firmness of their gold; for if to 22 carects of gold be put 2 carects of alloy (which is of silver, copper, or other baser metal, with which they use to mix their gold or silver to abate the fineness thereof) both making when mixed but an ounce or 24 carects, then this gold is said to be 22 carects fine; for if it come to be refined, the 2 carects of alloy will fly away, and leave only 22 carects of pure gold: the like to be considered of a greater or lesser quantity. And as the fineness of the gold is estimated by carects, so the fineness of silver is distinguished by ounces; for if a pound of it be pure, and loseth nothing in the refining, such silver is said to be 12 ounces fine; but if it loseth any thing, it is said to contain so much fineness as the loss wanteth of 12 ounces; as if it lost 1 ounce 14 penny weight, then it is said to be 10 ounces 6 penny weight fine and that which loseth 2 ounces 4 penny weight 16 grains, is said to be 9 ounces 15 penny weight 8 grains fine, &c. the like of a greater or less quantity.

Of apothecaries weight.

The apothecaries have their weights deduced from troy weight, a pound of troy being the greatest integer in a table of whole division and subdivision followeth, viz.

And therefore,

			lb.	oz.	sc.	dr.	gr.
12 Ounces	} Make	1 Pound	1	12	8	3	20
8 Drams		1 Ounce					
3 Scruples		1 Dram	1	12	96	288	5760
20 Grains		1 Scruple		1	8	24	480
					1	3	60
						1	20

Thus much concerning troy weight, and its derivative weights, which, as was said before, serveth to weigh bread, gold, silver, and electuaries. Now, besides troy weight, there is another kind of weight used in *England*, commonly known by the name of *avoirdupois weight* (1 pound of which is equal to 14 ounces 12 penny weight troy weight): and it serveth to weigh all kind of grocery wares, as also butter, cheese, flesh, wax, tallow, rosin, pitch, lead, and all such kind of garble; the table of which weight is as followeth.

4 Quarters of a pound	} Make	1 Dram
16 Drams		1 Ounce
16 Ounces		1 Pound
28 Pounds		1 Quarter of a hundred
4 Quarters		1 Hund. wt. or 112lb.
20 Hundred		1 Tun

Tun.	C.	grs.	lb.	oz.	dr.	grs.
1	20	4	28	16	16	4
1	20	20	2240	2880	5760	2893760
1	4	112	1792	28872	114688	
1	28	448	7168	28672		
1	16	256	1024			
1	16	64				
1		4				

Wool is weighed with this weight, but only the divisions are not the same, a table whereof followeth.

A table of the denominative parts of wool weight.

7 Pounds	}	Make	1 Clove
2 Cloves			1 Stone
2 Stones			1 Todd
6 Todd 1 stone			1 Wey
2 Weys			1 Sack
12 Sacks			1 Last

Last	sack.	wey.	todd.	stone.	clove.	lb.
1	12	2	6 $\frac{1}{2}$	2	2	7
1	12	24	156	312	624	4368
	1	2	13	26	52	364
		1	6 $\frac{1}{2}$	13	26	182
			1	2	4	28
				1	2	14
					1	7

Note, That in some counties the wey is 256lb, avoirdupois, as the *Suffolk* wey; but in *Essex*, there is 336 lb. in a wey.

The least denominative part of liquid measure is a pint, which was formerly taken from troy weight (1 pound of wheat, troy weight, making a pint of liquid measure): but in regard of the difference between the brewers and farmers of his majesty's excise, concerning the gauging of vessels, occasioned by the different opinions of artists concerning the solid inches in a gallon, it was lately decreed by act of parliament, the statute now making 288 solid inches in a beer gallon, and 231 in a wine gallon: and consequently the pint being a measure to contain 28 $\frac{1}{2}$ solid inches, and the pint being a measure to contain 28 $\frac{1}{2}$ cubical or solid inches. Whence is drawn the following table.

ARITHMETIC.

The table of liquid measure.

35½ Cubical inches	} Make	1 Pint beer measure
28½ Cubical inches		1 Pint wine measure
2 Pints		1 Quart
2 Quarts		1 Pottle
2 Pottles		1 Gallon
8 Gallons		1 Firkin of ale, soap, or herring
9 Gallons		1 Firkin of beer
10 Gallons and a half		1 Fir. of salmon or eels
2 Firkins		1 Kilderkin
2 Kilderkins		1 Barrel
42 Gallons		1 Tierce of wine
63 Gallons		1 Hoghead
2 Hogheads		1 Pipe or but
2 Pipes or buts		1 Tun of wine

And therefore,

Tuns. pipes. hds. gall. pints.
 1 — 2 — 2 — 63 — 8

1 — 2 — 4 — 252 — 2016

1 — 2 — 126 — 1008

1 — 63 — 504

1 — 8

The least denominative part of dry measure is also a pint, and this is likewise taken from troy weight: the table of whose division followeth.

The table of dry measure.

1 Pound troy	} Make	1 Pint
2 Pints		1 Quart
2 Quarts		1 Pottle
2 Pottles		1 Gallon
2 Gallons		1 Peck
4 Pecks		1 Bushel
4 Bushels		1 Comb
2 Combs		1 Quarter
4 Quarters		1 Chaldron
5 Quarters		1 Wey
2 Weys		1 Last

47320/50
 11330/6

ARITHMETIC.

102

And therefore, *Last, may you com bus packs, gal. pints.*

1—2—5—2—4—4—2—8

1—2—10—20—80—320—640—5120

1—5—10—40—160—320—2560

1—2—8—32—64—512

1—4—16—32—256

1—4—8—64

1—2—16

1—8

26/360/299

The least Constitutive of long measure is a barley-corn well dried, and taken out of the middle of the ear; whose table of parts followeth.

3 Barley-corns

12 Inches

3 Feet

3 Feet 9 inches, or a yard and a quarter

6 Feet

5 Yards and a half

40 Poles or perches

8 Furlongs

Male

1 Inch

1 Foot

1 Yard

1 Ell English

1 Fathom

1 Pole, perch, or rood

1 Furlong

1 English mile

And therefore,

Mile. furl. poles. yards. feet. inches barley-corns

1—8—40—512—3—12—3

1—8—320—768—5280—63360—190080

1—40—220—660—7920—23760

1—51—161—98—594

1—3—36—168

1—12—36

1—3—3

And note, that the yard; as well as the ell, is usually divided into 4 quarters, and each quarter into 4 nails.

Note also, that a geometrical pace is 5 feet; and there are 2056 such paces in an English mile.

13

96/760/1

The parts of the superficial measures of land, are such as are mentioned in the following table, viz.

A table of land measure.

40 Square poles	} Make	1 Rood or quarter of
or perches		an acre
4 Roods		1 Acre

By the foregoing table of long measure, you are informed what a pole, or, which is all one, a perch, is; and by this, that 40 square perches is a rood. Now, a square perch is a superficies very aptly resembled by a square trencher, every side thereof being a perch of $5\frac{1}{2}$ yards in length, 40 of them is a rood, and 4 roods an acre: so that a superficies that is 40 perches long and 4 broad is an acre of land, the acre containing in all 160 square perches.

The least denominative part of time is 1 minute, the greatest integer being a year; from whence is produced this following table.

The table of time.

60 Minutes	} Make	1 Hour
24 Hours		1 Day natural
7 Days		1 Week
4 Weeks		1 Month
13 Months, 1 day, 6 hours		1 Year

But the year is usually divided into 12 unequal kalendar months; whose names, and the number of days they contain follow, viz.

<i>Days.</i>		
January	31	So that the year containeth 365 days and 6 hours; but the 6 hours are not reckoned, but only every 4th year, and then there is a day added to the latter end of February, and then it containeth 29 days, and that year is called <i>leap year</i> , and containeth 366 days.
February	28	
March	31	
April	30	
May	31	
June	30	
July	31	
August	31	
September	30	
October	31	
November	30	
December	31	

And here note, that as the hour is divided into 60 minutes, so each minute is subdivided into 60 seconds, and each second into 60 thirds, and each third into 60 fourths, &c.

The tropical year, by the exactest observation of the most accurate astronomers, is found to be 365 days, 5 hours, 49 minutes, 4 seconds, and 21 thirds.

The following example will make this rule plain to the learner. Thus these following sums being given to be added, viz. 136*l* 13*s* 4*d* 2*qrs* and 79*l* 7*s* 10*d* 3*qrs*. and 33*l* 18*s* 9*d* 1*qr*, and likewise 15*l* 6*s* 5*d* 0*qrs*, the numbers being disposed according to order will stand as in the margin. Then begin at the denomination of farthings, and add them up; saying 1 and 3 are 4, and 2 makes 6. Now, I consider that 6 farthings are 1 penny and 2 farthings; wherefore I set down the 2 farthings in its place under the line, and keep 1 in mind to be added to the next denomination of pence. Then I go on, saying, 1 that I carried, and 5 are 6, and 9 are 15, and 10 are 25, and 4 are 29. Now I consider, that 29 pence are 2 shillings and 5 pence; therefore I set the 5 pence in order under the line, and keep 2 in mind for 2 shillings, to be added to the shillings. Then I go on, saying, 2 that I carried and 9 are 11, and 18 are 29, and 7 are 36, and 15 are 49. Then I consider that 49 shillings are 2 pounds and 9 shillings; wherefore I set the 9 shillings under the line, and carry 2 for the 2 pounds to the next and last denomination of pounds; and proceed, saying, 2 that I carried and 5 makes 7, and 3 are 10, and 9 are 19, and 6 are 25. Then I set down 5, and carry 2 for the 2 tens, and proceed; saying, 2 that I carried and 1 is 3, and 3 are 6, and 7 are 13, and 3 makes 16. And I set down 6, and carry 1 for the 10, and go on; saying, 1 that I carried and 1 are 2; which I set in its place under the line, and the work is finished. And thus I find the sum of the foresaid numbers to be 265*l* 9*s* 5*d* 2*qrs*. This to the ingenious practitioner is sufficient. But I shall, for the further illuminating of the weaker appre-

bensions, explain the operation of another example in troy weight. And here the learner must take notice of the table of troy weight mentioned before. The numbers given in this example are, 38 *lb.* 7 *oz.* 13 *p.* 18 *gr.* and 50 *lb.* 10 *oz.* 10 *p.* 12 *gr.* and 42 *lb.* 8 *oz.* 5 *p.* 16 *gr.* And, in order to the addition thereof, I place them as you see, and proceed to operation; saying, 6 and 12 are 18, and 18 are 46. Now, because 24 grains make 1 penny weight, 46 grains are

1 penny weight; and 22 grains; *lb. oz. p. gr.* wherefore I set down 22, and carry 1 for the penny weight; and going on, I say, 1 that I carry and 5 are 6, and 10 are 16, and 13 are 29; which is 1 ounce and 9 penny weight. I set down 9 in its place under the line, and carry 1 to the ounces; saying, 1 that I carry and 8 are 9, and 10 are 19, and 7 are 26. And because 16 ounces make 1 pound 2 ounces, I set down 2 for the ounces, and carry 2 to the pounds: going on, 2 that I carry and 2 are 4, and 3 makes 10; that is 2 and 10; then I carry and 4 are 5, and 5 are 10, and 3 makes 13; which I set down in the margin, and the work is finished: and I find the sum of the said numbers to amount to 132 *lb.* 2 *oz.* 9 *p.* 22 *gr.* This is sufficient for the understanding of the following examples, or any other that shall come to thy view. The way of proving these, or any sum in this rule, is shewed immediately after the ensuing examples.

Addition of troy weight.

<i>lb.</i>	<i>oz.</i>	<i>p.</i>	<i>gr.</i>	<i>lb.</i>	<i>oz.</i>	<i>p.</i>	<i>gr.</i>
38	7	13	18	50	10	10	12
42	8	5	16				
132	2	9	22				

ARITHMETIC.

105.

Addition of apothecaries weight.

lb.	oz.	dr.	sc.	gr.	lb.	oz.	dr.	sc.	gr.
48	7	1	0	14	60	3	4	0	10
74	5	5	2	10	48	10	6	0	14
64	10	7	1	11	34	8	2	1	15
17	8	1	0	16	18	11	2	2	11
34	9	6	1	9	160	7	1	2	15
240	5	6	1	0	35	2	5	1	7
					358	7	7	0	12

Addition of avoirdupois weight.

Tuns	C.	qrs.	lb.	lb.	oz.	dr.
75	13	1	15	36	10	12
48	7	3	21	22	11	13
60	11	1	17	11	7	4
21	7	0	25	15	4	10
12	16	0	11	20	10	9
218	17	0	5	106	13	0

Addition of liquid measure.

Tuns	pipes	hds.	gall.	Tuns	hds.	gall.	pints
45	1	1	48	30	3	40	4
15	0	1	17	12	0	28	6
38	0	0	42	47	5	60	5
12	1	0	56	57	3	22	3
21	1	1	8	17	0	0	0
133	0	1	60	168	1	26	2

Addition of dry measure.

Chald.	qrs.	bush.	pec.	Qrs.	bush.	pec.	gall.
48	3	7	3	17	3	1	1
13	1	4	0	50	1	3	0
54	0	6	2	14	5	3	1
16	3	6	1	40	2	0	1
40	1	0	1	30	0	3	0
173	3	0	3	152	5	3	1

ARITHMETIC.

Addition of long measure.

<i>Yards</i>	<i>qrs</i>	<i>nails</i>	<i>Ells</i>	<i>qrs</i>	<i>nails</i>
35	3	3	56	1	3
14	1	2	13	3	2
74	2	3	48	2	1
38	0	0	50	1	0
30	1	0	74	0	2
15	0	0	17	1	0
208	1	1	260	0	0

Addition of land measure.

<i>Acres</i>	<i>roods</i>	<i>perches</i>	<i>Acres</i>	<i>roods</i>	<i>perches</i>
12	3	18	86	1	36
14	0	24	47	3	24
30	2	19	73	2	18
48	2	30	60	0	7
28	1	38	4	2	8
50	3	26	14	1	14
185	3	35	286	3	27

The proof of addition.

Addition is proved after this manner. When you have found out the sum of the number given, then separate the uppermost line from the rest with a stroke or dash of the pen, and then add them all up again as you did before, leaving out the uppermost line; and having so done, add the new invented sum to the uppermost line you separated; and if the sum of those two lines be equal to the sum first found out, then the work was performed true, otherways not. As for example:

let us prove the first example of addition of money, whole sum we found to be 265 *l* 9 *s* 2 *grs*, and which we prove thus. Having separated the uppermost number from the rest by a line, as you see in the margin; then add the same together again, leaving out the said uppermost line, and the sum thereof I set under the first sum

<i>l</i>	<i>s</i>	<i>d</i>	<i>grs</i>
136	13	4	2
129	7	10	3
33	18	9	1
15	9	5	0
265	9	5	2
128	16	1	0
265	9	5	2

or true sum, which doth amount to 128 *l.* 16 *s.* 1 *d.* 0 *grs* then again I add this new sum to the uppermost line that before was separated from the rest, and the sum of those two is 265 *l.* 9 *s.* 5 *d.* 2 *grs* the same with the first sum; and therefore I conclude that the operation was rightly performed.

The main end of addition in questions resolvable thereby, is to know the sum of several debts, parcels, integers, &c. Some questions may be these that follow.

Quest. 1. There was an old man whose age was required. To which he replied, I have seven sons, each having two years between the birth of each other; and in the 44th year of my age my eldest son was born, which is now the age of the youngest. I demand, What was the old man's age?

Now, to resolve this question, first set down
 the father's age at the birth of the first child, which was 44; then the difference between the oldest and the youngest, which is 12 years; and then the age of the youngest, which is 44; and then add them all together; and their sum is 100, the compleat age of the father.

Quest. 2. A man lent his friend at several times these several sums, viz. at one time 63 *l.* at another time 50 *l.* at another time 48 *l.* at another time 156 *l.* Now I desire to know how much he lent him in all?

Set the sums lent under one another
 in the margin; and then add them together, and you will find the sum to amount to 317 *l.* which is the total of all the several sums lent, and so much is due to the creditor.

Quest. 3. From London to Ware is 20 miles, thence to Huntington 29 miles, thence to Stamford 25 miles, thence to Tuxford 36 miles, thence to Wanthridge 25 miles, from thence to York 20 miles. Now I desire to know how many miles it is from London to York, according to this reckoning?

Now, to answer this question, set down the several distances given, as you see in the margin; and add them together, and you will find their sum to amount to 251; which is the true distance in miles between London and York.

20
29
21
36
25
20

152

Quest. 4. There are two numbers, the least whereof is 40, and the difference 14. I desire to know what is the greater number, and also what is the sum of both? First set down the least, viz. 40, and 14 the difference; and add them together, and the sum is 54 for the greater number. Then I set 40 (the least) under 54, (the greatest), and add them together, and their sum is 94, equal to the greatest and least numbers.

40
14
—
54
40
—
94

Of subtraction of whole numbers.

1. **S**UBtraction is the taking of a lesser number out of a greater of like kind, whereby to find out a 3d number, being or declaring the inequality, excess or difference between the numbers given. Or, subtraction is that by which one number is taken out of another number given, to the end that the residue or remainder may be known; which remainder is also called the *rest*, *remainder* or *difference* of the numbers given.

2. The number out of which subtraction is to be made, must be greater, or at least equal with the other number given. The higher or superior number is called the *major* number; and the lower or inferior is called the *minor* number; and the operation of subtraction being finished, the rest or remainder is called the *difference* of the numbers given.

3. In subtraction, place the numbers given respectively the one under the other, in such sort as like degrees, places or denominations, may stand in the same series, viz. units under units, tens under tens, pounds under pounds, &c. feet under feet, and parts under parts,

etc. This being done, draw a line underneath, as in addition.

4. Having placed the numbers given as is before directed, and drawn in a line under them, subtract the lower number (which in this case must always be less than the uppermost) out of the higher number, and subscribe the difference or remainder respectively below the line; and when the work is finished, the number below the line, will give you the remainder.

As for example: let 364521 be given to be subtracted from 795836. I set the lesser under the greater, as in the margin, and draw a line under them; then beginning at the right hand, I say, 1 out of 6 and there remains 5, which I set in order under the line. Then I proceed to the next, saying 2 from 3 rests 1; which I note also under the line. And thus I go on till I have finished the work. And then I find the remainder or difference to be 431315.

5. But if it so happen, as commonly it doth, that the lowermost number or figure is greater than the uppermost; then, in this case, add 10 to the uppermost number, and subtract the said lowermost number from their sum, and the remainder place under the line; and when you go to the next figure below, pay an unit, by adding it thereto for the 10 you borrowed before, and subtract that from the higher number of figures. And thus go on till your subtraction be finished. As for example: Let 437503 be given, from whence it is required to subtract 153827. I dispose of the numbers as is before directed, and as you see in the margin; then I begin, saying, 7 from 3 I cannot, but, adding 10 thereto, I say, 7 from 13, and there remains 6; which I set under the line in order. Then I proceed to the next figure, saying, 8 that I borrowed, and 2 is 3 from 11 I cannot, but 3 from 10, and there remains 7; which I set in the same way as before. Then I say, 3 that I borrowed and 8 is 9 from 5 I cannot, but 9 from 15 there remains 6. Then 1 I borrowed and 3 is 4 from 7, and there remains 3. Then 5 from 3 I cannot, but 5 from 13, and there remains 8. Then 1 borrowed, and 1 are 2 from 4, and

there rests 2. And thus the work is finished. And after these numbers are subtracted one from another, the inequality, remainder, excess or difference, is found to be 283676. Examples for thy farther experience may be these that follow.

From 3469916
Take 738642

Rests 2731274

From 361576
Take 5864

Rests 355712

6. If the sum or number to be subtracted is of several denominations, place the lesser sum below the greater, and in the same rank and order as is shewed in addition of the same numbers. Then begin at the right hand; and take the lower number out of the uppermost, if it be lesser; but if it be bigger than the uppermost, then borrow an unit from the next greater denomination, and turn into the parts of the less denomination, and add those parts to the uppermost, noting the remainder below the line. Then proceed, and pay 1 to the next denomination for that which you borrowed before; and proceed in this order, until the work be finished. An example of this rule may be this that followeth. Let 375 *l* 13 *s* 7 *d* 1 *qr* be given, from whence let it be required to subtract 17 *l* 16 *s* 3 *d* 2 *grs*. In order whereunto I place the numbers as you see in the margin. And thus I begin at the least denomination, saying, 2 from 1 cannot, therefore I borrow 1 penny from the next denomination, and turn it into farthings, which is 4; and adding 4 to 1, which is 5, I say, 2 from 5, and there remains 3; which I put under the line. Then going on, I say, 1 that I borrowed and 3 is 4 from 7, and there rests 3. Then going on, I say, 16 from 13 I cannot, but borrowing 1 pounce, and turning it into 20 shillings, I add the 3, and that is 33; wherefore I say, 16 from 33, there remains 17; which I set under the line, saying, 1 that I borrowed and 7 is 8 from 15, but 8 from 15, and there remains 7; the 1 that I borrowed and 5 is 6

from 7, there rests 1, and 0 from 3 rests 3. And I find the remainder or difference to be 31 *lb* 17 *s* 3 *d* 3 *grs*.

An example of troy weight may be this. I would subtract 17 *lb* 10 *oz* 11 *pw* 20 *gr* from 24 *lb* 5 *oz* 0 *pw* 8 *gr*. I place the numbers according to the rule; and begin, say-

	<i>lb</i>	<i>oz</i>	<i>pw</i>	<i>gr</i>
ing 20 from 8 I cannot, but borrow	24	5	0	8
1 penny weight, which is 24 grains,	17	10	11	20
and add them to 8, and they are 32,				
wherefore I say, 20 from 22 rests	6	6	8	12

12. Then 1 that I borrowed and 11 is 12 from 0 I cannot, but 12 from 20, borrowing an ounce, which is 20 penny weight, and there remains 8. Then 1 that I borrowed and 10 is 11 from 5 I cannot, but 11 from 17, and there rests 6. Then 1 that I borrowed and 7 is 8 from 4 I cannot, but 8 from 14, and there rests 6. Then 1 that I borrowed and 1 is 2 from 2, and there rests nothing. So that I find the remainder or difference to be 6 *lb* 6 *oz* 8 *pw* 12 *gr*.

7. It many times happeneth, that you have many sums or numbers to be subtracted from one number; as suppose a man should lend his friend a certain sum of money, and his friend hath paid him part of his debt at several times. Then before you can conveniently know what is still owing, you are to add the several numbers or sums of payments together, and subtract their sum from the whole debt, and the remainder is the sum due to the creditor. As suppose *A* lendeth to *B* 564 *l* 16 *s* 10 *d* and

B hath repaid him 79 *l*

16 *s* 8 *d* at one time, Lent

and 163 *l* 18 *s* 11 *d* at

another time, and 241 *l*

15 *s* 8 *d* at another

time; and you would

know how the accompt

standeth between them,

or what more is due to

A. In order whereun-

to I first set down the

sum which *A* lent, and draw a line underneath it;

then under that line I set the several sums of payment

K

	<i>l</i>	<i>s</i>	<i>d</i>
Lent	564	16	10
Paid at several payments	79	16	8
	163	18	11
	241	15	8
Paid in all	483	11	3
Remains	79	5	7

as you see in the margin; and having brought the several sums of payment into one total, I find their sum amounteth to 483 / 11 3d, which I subtract from the sum first lent by A, and I find the remainder to be 79 / 5 7 d, and so much is still due to A.

When the learner hath good knowledge of what hath been already delivered, he will with ease understand the following examples.

Subtraction of money.

	l	s	d	grs	l	s	d	grs
Borrowed	374	10	3		700	10	11	1
Paid	07	15	11		9	3	11	2
Remains	276	14	4		691	6	11	3
Borrowed	1000	0	0		711	3	0	0
Paid	19	6	0		11	13	0	1
Remains due	980	19	6		699	9	14	3
Borrowed					3300	0	0	0
					170	10	0	0
					960	13	10	1
Paid at several payments					590	3	14	3
					74	04	11	3
Paid in all					1194	13	0	3
Remains due					2106	6	11	3

Subtraction of Troy weight.

	lb	oz	d	grs
Bought	174	0	13	0
Sold	18	4	16	15
Remains	156	2	19	9

ARITHMETIC.

113

Bought

lb oz dr gr
470 10 1 0

Sold at several times

60 0 0 0
35 10 18 0
16 7 9 8
48 4 0 0
64 11 19 23
23 0 0 0

Sold in all

245 10 7 7

Remains unfold

224 11 13 17

Subtraction of apothecaries weight.

	lb	oz	dr	sc	gr	lb	oz	dr	sc	gr
Bought	12	4	3	0	0	20	0	1	0	7
Sold	8	5	1	1	15	10	0	1	2	12
Remains	3	11	1	4	5	9	11	7	0	25

Subtraction of avoirdupois weight.

	C	grs	lb	T	C	grs	lb	oz	dr
Bought	85	0	15	5	7	4	10	10	5
Sold	16	2	20	3	17	1	16	9	13
Remains	18	1	23	1	9	3	22	0	8

Subtraction of liquid measure.

	Tuns	hds	gall	Tuns	hds	gall	pints
Bought	40	1	30	60	3	42	4
Sold	16	1	40	15	0	40	0
Rem.	23	0	50	44	3	2	4

Subtraction of dry measure.

	Chal	grs	bush	pec	Chal	grs	bush	pec
Bt. 100	0	0	0	0	75	2	3	3
Sd. 54	1	4	3	3	40	2	3	3
Rem. 45	2	3	1	3	26	0	7	3

K 3

ARITHMETIC

Subtraction of long measure.

	<i>Yards</i>	<i>qrs</i>	<i>nails</i>		<i>Yards</i>	<i>qrs</i>	<i>nails</i>
Bt.	160	0	0		344	0	1
Sold	95	1	2		177	0	3
Rem.	64	2	2		166	3	2

Subtraction of land measure.

	<i>Acres</i>	<i>roods</i>	<i>perch</i>		<i>Acres</i>	<i>roods</i>	<i>perch</i>
Bt.	140	2	13		600	0	0
Sold	70	3	12		54	0	16
Rem.	69	3	1		545	3	24

Proof of subtraction.

Sum in this rule are easily proved, by adding their remainders to their lesser numbers; which (if right) will make the greater.

MULTIPLICATION.

Multiplication may be accounted the most serviceable rule in arithmetic; it performs the work of many additions in the most expeditious manner, brings numbers of great denominations into small, as pounds into shillings, pence, or farthings; and by knowing the value of one thing, we find the value of many.

In multiplication observe still three terms, *multiplicand, multiplier, product*.

1. The *multiplicand*, (generally the greater of the two numbers) is the number to be multiplied.

2. The *multiplier*, (generally the lesser of the two numbers) is the number to be multiplied with.

3. The *product*, is the result of the work, or the answer to the question. But before any thing can be done

to the purpose, it is necessary to learn the following table
perfect by heart.

The Multiplication Table.

3 times	3	9	7 times	7	49
	4	12		8	56
	5	15		9	63
	6	18			
	7	21	8 times	8	64
	8	24		9	72
4 times	9	27			
	4	16	9 times	9	81
	5	20			
	6	24	12 times	2	24
	7	28		3	36
	8	32		4	48
5 times	9	36		5	60
	5	25		6	72
	6	30		7	84
	7	35		8	96
	8	40		9	108
	9	45		10	120
6 times	6	36		11	132
	7	42		12	144
	8	48			
	9	54			

What is the amount of 3 times 654?

Answer, If you let the number 654, 3 times down on paper, one over another, the total will be 1962.

But such questions are done by this rule of multiplication much readier, for being let down thus:

654 Multiplier
3 Multiplier

To know how much 3 times 654 is, begin at the right hand, 4 is 12, the figure 2 of the 12, the figure

the line, and bear the 10 of the 12 in mind, as 2; bear, 3 times 3 is 15, and the 1 bore in mind, makes 16; so I set 6 below the line, and bear the ten in mind as one; next, I say, 3 time 6 is 18, and one bore in mind makes 19, which I set down, and the work will stand as in the margin.

654
3
—
1962

How many is 3 times 472? Set the figures down as in the margin; then say 3 times 2 is 6, which place under the 2 in the multiplicand; then 3 times 7 is 21; set down one under 7, and carry 2, for 2 tens, as in addition of one denomination; then 3 times 4 is 12, and 2 is 14; which I set down, and the product is 1416, that is 3 times 472 makes so much; and may be proved by addition, by setting down 472 three times in additional order, and casting it up, which makes the assertion good in the second definition, that this rule expeditiously performs the office of addition. Likewise the foregoing examples agree with the first definition; for as 3 times 472 makes 1416, so doth 472 times 3 make the same number.

472
3
—
1416

Example. Again, How many makes 742 multiplied by 4?

742	Multiplicand	} Here I say, 4 times 2 is 8, and 4 times 4 is 16; 6 and carry 1; and 4 times 7 is 28, and 1 is 29, which set down; so the whole product is 2968, as per example.
4	Multiplier	
2968	Product	

More examples of one figure in the multiplier, are these, six.

Multiplicand	7436	4444	7468	90704	56789
Multiplier	5	6	7	8	9
Product	37180	26664	52276	725632	511101

In compound multiplication.

When the multiplier consists of more figures than one, you must begin with the figure which is the highest of

units of the multiplier, and go thro' the whole multiplicand, by multiplying each figure of it first by that unit figure, then by the next, to wit, by the figure in the place of tens of the multiplier, then with the third, &c. to the last; always remembering to place the first figure of every product or line (for you will ever have as many as you have significant figures in the multiplier). I say, remember to place the first figure of every line exactly and perpendicularly under the figure you multiply by: and then add the several lines or products together, which so collected, gives the total product required, as in the examples following, viz.

Example.

How many is, or are, 23 times 7426? First, 23
begin with the unit figure 3 in the multiplier, 23
saying, 3 times 6 is 18; 8 (which I set directly
under 3, by which I multiply) and carry one; 3 times 2
then 3 times 2 is 6, and one is 7; then 3 times
4 is 12; 2 and carry one; then 3 times 7 is 21
and one is 22. And so I have done with the
first figure of the multiplier, viz. 3. Then I
go to the next, that is 2, and say, twice 6 is 12; 2 and
carry one; (which 2 is placed in a direct line under 3
the multiplying figure) then twice 2 is 4, and one is 5;
then twice 4 is 8; and lastly twice 7 is 14; which I set
down; then I add the two products together, saying, 8
is 8, 20, and the total is the right and proper product,
or result of the multiplication, viz. 170798.

527535
15728
4290280
1055070
3692745
2637675
527535
829707480

275827
19785
67379135
531654
1980780
2482443
275827
5440687575

When cyphers are intermixt with figures in the multiplier then multiply by the figures as above; and when you come to a cypher in the multiplier, then set down another cypher exactly and perpendicularly under it; then begin the multiplicand again with the next figure to the cypher in the multiplier, and go through it in the same line, placing the first figure of that product next to the cypher towards the left hand, but then heed must be taken, that the next figure or cypher, of the next line must be set down one degree farther towards the left-hand, and not immediately under the last figure set down next to the cypher: as in the following examples may be fully understood.

$$\begin{array}{r}
 24393 \\
 \times 402 \\
 \hline
 48786 \\
 975720 \\
 \hline
 9805986
 \end{array}
 \qquad
 \begin{array}{r}
 7864371 \\
 \times 23604 \\
 \hline
 31457484 \\
 471862260 \\
 \hline
 23593113 \\
 15728742 \\
 \hline
 1860613084
 \end{array}
 \qquad
 \begin{array}{r}
 327586 \\
 \times 6030 \\
 \hline
 9827580 \\
 19655160 \\
 \hline
 1975343580
 \end{array}$$

When you have a cypher or cyphers in the multiplier, at the beginning towards the right hand; then set it or them backwards from the place of units towards the right hand, and when you have multiplied by the figure or figures, annex the cypher or cyphers.

As in these examples.

$$\begin{array}{r}
 4768 \\
 \times 400 \\
 \hline
 19184800
 \end{array}
 \qquad
 \begin{array}{r}
 4632 \\
 \times 2600 \\
 \hline
 27792 \\
 9264 \\
 \hline
 12043200
 \end{array}$$

If you have cyphers in the units place, &c. both in the multiplicand and multiplier, then neglect the cy-

phers in both, and multiply by the figures, and annex as many cyphers to the total product as is the sum of the cyphers, both in multiplicand and multiplier.

As in these examples.

43600	42300	376400
220	12000	2400
852	846	15056
852	423	7528
9372000	507600000	903360000

When you are to multiply by 10, 100, 1000, or 10000, it is only adding or annexing so many cyphers to the multiplicand, as in the multiplier, that is, either 1, 2, 3, or 4 cyphers, and the work is done. *Example,* Suppose I am to multiply 375 by the numbers above; if I multiply it by 10, then I join 0 to 375, and then it makes, or the product is, 3750: if by 100, then I annex 00, and then it makes 37500: if by 1000, I put 0 to it 000, and then it produces 375000: and lastly, if by 10000, I then add 0000, and then it makes 3750000, &c. And thus may any number be multiplied, when the multiplier consists of an unit with any number of cyphers.

Suppose you want to know how many half-crowns there are in 246*l.* you know that 8 half-crowns make a pound wherefore let them down thus:

246*l.*
Multiplied by 8 the half crowns in a pound.

Answer 1968 half crowns in all.

Again, In 1968 half crowns how many pence?
Multiply by 20 the pence in a half crown.

Answer 39360 pence in 1968 half crowns.

And this serves to make out, that great denominations are brought into smaller by this rule.

Admit you wanted to know the contents of a large table 34 feet long, and 4 feet wide.

Multiply 34 the length
by 4 the breadth, and the

Answer will be 136 square feet for the true contents of such a table.

Multiplication of money.

Multiplication of money (what most would learn above every thing) hath great affinity with addition of money, the same method being taken in carrying one denomination to the next, viz. from farthings to pence, from pence to shillings, and from shillings to pounds. And as in addition, (and other multiplications) you begin at the right hand, and proceed towards the left; so here you begin at the least denomination, which is also at the right hand.

This method of accounting is the most apt and expeditious of all others, for smaller quantities; and therefore extremely necessary in making bills of parcels, &c. And is beyond all contradiction, as sure and certain as any way whatsoever.

The general rule,

Is always to multiply the price by the quantity.

The first step is, for quantities from 2 to 12; and this is done by one multiplier; as in the following example:

Example 1. What must I give for 6 pieces of cloth, if one cost 7 l. 12 s. 6 d.

l. s. d.
7 12 6

Multiply the price by 6

And the product is the answer, viz. 45 15 0

Here I say 6 times 6 is 36 pence, which is just 3s. I set down 0 in the place of pence, and carry 3s. to the place of shillings, exactly the same as in addition of money; then 6 times 12 is 72, and 3 is 75s. or 3*l.* 15s. wherefore I set down 15 in the place of shillings, and carry 3 to the pounds; then 6 times 7 is 42 and 3 is 45*l.* So the whole amount of the cloths, at 7*l.* 12s. 6d. per piece, is 45*l.* 15s. as in the work, and very concise.

Questions proper for this Rule.

Question 1. What is the contents of a square piece of ground, whose length is 28 perches, and breadth 13 perches?

Answer, 364 square perches: for multiplying 28 the length by 13 the breadth, the product is so much.

Question 2. There is a square battle, whose flank is 47 men, and the files 19 deep: what number of men doth that battle contain? *Facit* 893: for multiplying 47 by 19, the product is 893.

Question 3. If any one thing cost 4 shillings, what shall 9 things cost? *Answer,* 36 shillings: for multiply 4 by 9, the product is 36.

Question 4. If a piece of money or merchandize be worth or cost 17 shillings, what shall 19 such pieces of money or merchandize cost? *Facit* 323 shillings, which is equal to 16*l.* 3s.

Question 5. If a soldier or servant get or spent 14s. per month, what is the wages or charges of 49 soldiers or servants for the same time? Multiply 49 by 14, the product is 686s. or 34*l.* 6s. for the answer.

Questions 6. If in a day there are 24 hours, how many hours are there in a year, accounting 365 days to constitute the year? *Facit* 8760 hours: to which if you add the 6 hours over and above 365 days, as there is in a year, then it will be 8766 hours. Now, if you multiply this 8766 by 60, you have the number of minutes in a year.

Division of whole numbers.

1. **D**ivision is the separating or parting of any number or quantity given into any parts assigned ; or to find how often one number is contained in another ; or from any two numbers given to find a third that shall consist of so many units, as the one of those two given numbers is comprehended or contained in the other.

2. Division hath three parts or numbers remarkable, *viz.* first the dividend ; secondly, the divisor ; thirdly, the quotient. The dividend is the number given to be parted or divided. The divisor is the number given by which the dividend is divided ; or it is the number which sheweth how many parts the dividend is to be divided into. And the quotient is the number produced by the division of the two given numbers, the one by the other.

So 12 being given to be divided by 3, or into three equal parts, the quotient will be 4, for three is contained in 12 four times ; where 12 is the dividend, and 3 is the divisor, and 4 is the quotient.

3. In division set down your dividend, and draw a crooked line at each end of it ; and before the line at the left hand place the divisor, and behind that on the right hand place the figures of the quotient, as in the margin ; where it is required to 3) 12 (4 divide 12 by 3. First, I set down 12 the dividend, and on each side of it do I draw a crooked line, and before that on the left hand do I place 3 the divisor. Then do I seek how often 3 is contained in 12 ; and because I find it 4 times, I put 4 behind the crooked line on the right hand of the dividend, denoting the quotient.

4. But if, when the divisor is a single figure, the dividend consisteth of two or more places ; then, having placed them for the work, as is before directed, put a point under the first figure on the left hand of the dividend, provided it be bigger than, or equal to the divisor ; but if it be less than the divisor, then put a point under the second figure from the left hand of the dividend : which figures, as far as the point goeth from the left

hand, are to be reckoned by themselves, as if they had no dependence upon the other part of the dividend, and, for distinction's sake, may be called the *dividual*. Then ask how often the divisor is contained in the dividual, placing the answer in the quotient. Then multiply the divisor by the figure that you placed in the quotient, and set the product thereof under your dividual. Then draw a line under the product, and subtract the said product from the dividual, placing the remainder under the said line. Then put a point under the next figure in the dividend on the right hand of that to which you put the point before, and draw it down, placing it on the right hand of the remainder which you found by subtraction, which remainder, with the said figure annexed to it, shall be a new dividual. Then seek again how often the divisor is contained in this new dividual, and put the answer in the quotient on the right hand of the figure which you put there before. Then multiply the divisor by the last figure that you put in the quotient, and subscribe the product under the dividual, and make subtraction, and to the remainder draw down the next figure from the grand dividend, (having first put a point under it,) and put it on the right hand of the remainder for a new dividual, as before, &c. and proceed thus till the work is finished.

Observe this general rule in all kinds of division.

First, To seek how often the divisor is contained in the dividual. Then, having put the answer in the quotient, multiply the divisor thereby, and subtract the product from the dividual. An example or two will make the rule plain. Let it be required to divide 2184 by 6. I dispose the numbers given as is before directed, and as you see in the margin, in order to the work.

Then, because 6 the divisor is more than 2 the first figure of the dividend, I put a point under 1 the second figure, which makes 21 for the dividual. Then do I ask how often 6 the divisor is contained in 21, and because I cannot have it more than 3 times, I put 3 in the quotient, and thereby do I multiply the divisor (6) and the product is 18, which I set in order under the dividual, and sub-

6)2184(3

6)2184(3

18

3

tract it therefrom, and the remainder (3) I place in order under the line, as you see in the margin.

Then do I make a point under the next figure of the dividend, being 8, and draw it down, annexing it to the remainder 3; so I have 38 for a new dividual. Then do I seek how often 6 is contained in 38; and because I cannot have it more than 6 times, I put 6 in the quotient; and thereby do I multiply the divisor (6) and the product 1(36) I put under the dividual (38), and subtract it therefrom, and the remainder (2) I put under the line, as you see in the margin.

Then do I put a point under the next (and last) figure of the dividend, (being 4), and draw it down to the remainder (4); and putting it on the right hand thereof, it maketh 24 for a new dividual. Then I seek how often 6 is contained in 24; and the answer is 4, which I put in the quotient, and multiply the divisor (6) thereby, and the product (24) I put under the dividual (24), and subtract it therefrom, and the remainder is 0. And thus the work is finished; and I find the quotient to be 364; that is 6 is contained in 2184 just 364 times, or 2184 being divided into 6 equal parts, 364 is one of those parts.

Again, if it were required to divide 2646 by 7, or into 7 equal parts, the quotient will be found to be 378; as appeareth by the operation on the margin.

$$\begin{array}{r}
 6) 2184 \quad (36 \\
 \underline{00} \\
 18 \\
 \underline{00} \\
 38 \\
 \underline{00} \\
 36 \\
 \underline{00} \\
 2
 \end{array}$$

$$\begin{array}{r}
 6) 2184 \quad (364 \\
 \underline{00} \\
 18 \\
 \underline{00} \\
 38 \\
 \underline{00} \\
 36 \\
 \underline{00} \\
 24 \\
 \underline{00} \\
 24 \\
 \underline{00} \\
 (0)
 \end{array}$$

$$\begin{array}{r}
 7) 2646 \quad (378 \\
 \underline{00} \\
 21 \\
 \underline{00} \\
 54 \\
 \underline{00} \\
 49 \\
 \underline{00} \\
 56 \\
 \underline{00} \\
 56 \\
 \underline{00} \\
 (0)
 \end{array}$$

ARITHMETIC.

125

So if it were required to divide 946 by 8, the quotient will be found to be 118, and 2 remaining after division is ended. The work appeareth on the margin.

$$\begin{array}{r}
 8 \overline{) 946} \quad (118 \\
 \underline{\dots} \\
 8 \\
 \underline{} \\
 66 \\
 \underline{64} \\
 (2)
 \end{array}$$

Many times the dividend cannot exactly be divided by the divisor, but something will remain; as in the last example; where 946 was given to be divided by 8, the quotient was 118, and there remaineth 2 after the division is ended. Now what is to be done in this case with the remainder, the learner shall be taught when we come to treat of the reducing (or reduction) of fractions.

And here note, that if, after your division is ended, any thing do remain, it must be less than your divisor; for otherwise your work is not rightly performed.

Other examples are as follow.

$$8) 73464 \quad (9183$$

$$\begin{array}{r}
 \dots \\
 72 \\
 \underline{} \\
 14 \\
 8 \\
 \underline{} \\
 66 \\
 64 \\
 \underline{} \\
 24 \\
 24 \\
 \underline{} \\
 (0)
 \end{array}$$

$$9) 13758 \quad (1528$$

$$\begin{array}{r}
 \dots \\
 9 \\
 \underline{} \\
 47 \\
 45 \\
 \underline{} \\
 25 \\
 18 \\
 \underline{} \\
 78 \\
 72 \\
 \underline{} \\
 (6)
 \end{array}$$

5. But if the divisor consisteth of more places than one, then chuse so many figures from the left side of the dividend for a dividual as there are figures in the divisor; and put a point under the farthest figure of that dividual to the right hand, and seek how often the first figure on the left side of the divisor is contained in the first figure on the left side of the dividual, and place the answer in the quotient, and thereby multiply your divisor, placing your product under your dividual, and subtract it therefrom, placing the remainder below the line. Then put a point under the next figure in the dividend, and draw it down to the said remainder and annex it on the right side thereof, which makes a new dividual; and proceed as before, till the work is finished.

And if it so happen, that, after you have chosen your first dividual as is before directed, you find it to be less than the divisor; then put a point under the figure more near to the right hand, and seek how often the first figure on the left side of the divisor is contained in the two first figures on the left side of the dividual, and place the answer in the quotient; by which multiply the divisor, and place the product thereof in order under the dividual, and subtract it therefrom, and then proceed as before.

Always remembering, that in all cases of division, if, after you have multiplied your divisor by the figure first placed in the quotient, the product be greater than the dividual, then you must cancel that figure in the quotient, and, instead thereof, put a figure less by an unit, (or one) and multiply the divisor thereby: and if still the product be greater than the dividual, make the figure in the quotient less by an unit. And thus do, until your product be less than the dividual, or at the most equal thereto, and then make subtraction. &c.

So, if you would divide 9464 by 24, the quotient will be found to be 394. I first put down the given number, as is before directed in the third rule. Now, because my divisor consisteth of two figures, I therefore put a point under my second figure from the left hand of my dividend, which is 4; wherefore I seek how often 2 (the first fi-

$$\begin{array}{r}
 24 \overline{) 9464} \quad 3 \\
 \underline{72} \\
 22
 \end{array}$$

figure on the left side of the divisor is contained in 9, (the like first in the dividend) ; the answer is 4; which I put in the quotient, and thereby multiply all the divisor, and find the product to be 96, which is greater than the dividend ; wherefore I cancel the 4 in the quotient, and, instead thereof, I put 3 (an unit less) and by it multiply the divisor 24, and the product is 72 ; which I subtract from 94 the dividend, and the remainder is 22. I then do I make a point under the next figure 6 in the dividend, and draw it down, and place it on the right side of the remainder 22, and it makes 226 for a new dividend. Now, because the dividend 226 consisteth of a figure more than the divisor, therefore I seek how often 2 (the figure of the divisor) is contained in 22, the two first of the dividend : I say 9 times : wherefore I put 9 in the quotient, and thereby multiply the divisor 24 ; the product (216) I place under the dividend 226, and subtract from it, and there remaineth 10.

$$\begin{array}{r}
 24) 9464 \quad (39 \\
 \quad \cdot \cdot \cdot \\
 \quad 72 \\
 \hline
 \quad 226 \\
 \quad 216 \\
 \hline
 \quad 10
 \end{array}$$

Then I go on, and make a point under the next and last figure (4) in the dividend, and draw it down to the remainder 10, and it makes 104 for a new dividend : which is also a figure more than the divisor ; and therefore I seek how often 2 is contained in 10 : I answer 5 times.

But multiplying my divisor by 5, the product is 120 ; which is greater than the dividend : and therefore I make it but 4 : and by it multiply the divisor, and the product is 96, which being placed under, and subtracted from the dividend, there remaineth 8. And thus the whole work of division is ended ; and I find, that 9464 being divided by 24, or into 24 equal parts, is found to be 394, as was said before, and the remainder is 8 ; as you see in the work on the margin.

$$\begin{array}{r}
 24) 9464 \quad (394 \\
 \quad \cdot \cdot \cdot \\
 \quad 72 \\
 \hline
 \quad 226 \\
 \quad 216 \\
 \hline
 \quad 104 \\
 \quad 96 \\
 \hline
 \quad (8)
 \end{array}$$

Another example may be this. Let there be required the quotient of 1183653 divided by 385. First I dispose of the numbers in order to their dividing ; and be-

cause 118, the three first figures of the dividend, is less than the divisor 385, I therefore make a point under the fourth figure, which is 3, and see how often 3 (the first figure of the divisor) is contained in 11; the answer is 3, which I put in the quotient, and thereby multiply the divisor 385, and the product is 1155, which I subtract from the dividend 1183, and there remains 28. Then (as before) draw down the next figure, which is 6, and place it before the remainder 28: so have I 286 for a new dividend: and because it hath no more figures than the divisor, I seek how often 3 (the first figure in the divisor) is contained in 2 (the first figure of the dividend); and the answer is 0; for a greater number cannot be contained in a lesser; wherefore I put 0 in the quotient: and thereby (according to the 5th rule) I should multiply my divisor; but if I do, the product will be 0; and 0 subtracted from the dividend 286, the remainder is the same. Wherefore I draw down the next figure (5) from the dividend, and put it before the said remainder 286: so have I 2865 for a new dividend; and because it consisteth of four places, viz. a place more than the divisor, I seek how often 3 (the first figure of the divisor) is contained in 28 (the two first of the dividend), and I say, there is 9 times 3 in 28; but multiplying the whole divisor (385) thereby, I find the product to be 3465, which is greater than the dividend 2865: wherefore I chuse 8, which is less by an unit than 9; and thereby I multiply the divisor 385, and the product is 3080, which still is greater than the said dividend: wherefore I chuse another number yet an unit less, viz. 7; and having multiplied my divisor thereby, the product is 2695; which is less than the dividend 2865: wherefore I put 7 in the quotient, and subtract 2695 from the

385) 1183653 (3

1155

28

385) 1183653 (30

1155

286

385) 1183653 (307

1155

2865

2695

170

dividual 2865, and there remains 170. Then I draw down the last figure (3) in the dividend, and place it before the said remainder 170, and it makes 1703 for a new dividual. Then (for the reason above said) I seek how often 3 is contained in 17: the answer is 5, by multiplying the divisor thereby, the product is 1925 greater than the dividual; wherefore I say it will bear 4, an unit less, and

$$\begin{array}{r}
 385 \overline{) 1183653} (3074 \\
 \underline{ 1155} \\
 2865 \\
 \underline{ 2695} \\
 1703 \\
 \underline{ 1540} \\
 (163)
 \end{array}$$

by it I multiply the divisor 385; and the product is 1540, which is less than the dividual, and therefore I put 4 in the quotient, and subtract the said product from the dividual, and there remaineth 163. And thus the work is finished; and I find that 1183653 being divided by 385, or in 385 equal shares or parts, the quotient, or one of those parts, is 3074, and besides there is 163 remaining.

And thus the learner being well versed in the method of the foregoing examples, may be sufficiently qualified for the dividing of any greater sum or number, into as many parts as he pleaseth; that is, he may understand the method of dividing by a divisor that consisteth of 4, or 5, or 6, or any greater number of places; the method being the same with the foregoing examples in every respect.

Other examples in division.

$$27986 \overline{) 835684790} (29860 \quad 196374 \overline{) 473986018} (2413$$

$$\begin{array}{r}
 55972 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 275964 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 251874 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 240907 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 223888 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 170199 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 167916 \\
 \hline
 \end{array}$$

Remains 22830

$$\begin{array}{r}
 392748 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 812380 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 785496 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 268841 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 196374 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 724678 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 589122 \\
 \hline
 \end{array}$$

Remains 135556

So if you divide 47386473 by 58736, you will find the quotient to be 806, and 45257 will remain after the work is ended.

In like manner, if you would divide 3846739204 by 483064, the quotient will be 7963, and the remainder after division will be 100572.

When the divisor is 3, 4, 5, 6, or more figures, there is a sure and easy way of performing the work truly, by making a table of the divisor, which may be done by addition, or multiplying the divisor by 2, 3, 4, &c.

Admit you are to divide 987654321 by 123456

$$\begin{array}{r} 123456 \overline{) 987654321} \quad (8000 \\ 987648 \dots \end{array}$$

6321

Here having noted the number of figures in the divisor, which here is six, I make a point under the seventh figure, or place of the dividend, &c.

$$1 \quad 123456$$

$$2 \quad 246912$$

$$3 \quad 370368$$

$$4 \quad 493824$$

$$5 \quad 617280$$

$$6 \quad 740736$$

$$7 \quad 864192$$

$$8 \quad 987648$$

$$9 \quad 1111104$$

This table is made by doubling the first line, which is 246912, which added to the first or uppermost line gives the third line 370368, which also added to the said first line makes 493824 for the fourth line or product; and so of the rest, till remembering to add the subsequent line, till you come the last line of 9 times, which is 1111104. The truth of which may be proved by multiplying the first or uppermost line by 2, 3, 4, 5, &c. and if you commit an error by addition it may be found out, or corrected by multiplication.

The use of the said table.

When you have pointed out your number of places in the dividend, cast your eye on the table, and at the first view you may know how many times you can take; as in this example, 7 times is too little, and 9 times too much, wherefore I set down 8 in the quotient, and then multiply and subtract, and the remainder is 6; to which I bring down 3, and put 0 in the quotient, then to the 63 I bring down 2, and place another 0 in the quotient, then to 632 I bring down 1, the last figure of the dividend, but still it will not bear any time or times, wherefore I put another 0 in the quotient, and so the work is done, and the quotient is 8000, and the remainder 6321, as in the work.

Abbreviations.

(1st.) If there are any cyphers on the right hand of your divisor, you may cut off so many cyphers, or figures, on the right hand of your dividend, but remember to bring them down (if figures) to the remainder.

Example.

$$\begin{array}{r}
 21100 \overline{) 8645129} (411 \\
 \underline{84} \\
 24 \\
 \underline{21} \\
 35 \\
 \underline{21} \\
 1429
 \end{array}$$

(2dly.) By the foregoing rule you may observe, that to divide by 10, 100, 1000, &c. is only to cut so many figures from the right hand of the dividend, as there are cyphers in the divisor.

Example.

$$11000 \overline{) 436821735}$$

So the quotient is 43682, the remainder 735.

(3dly.) When your divisor is 12, or consists only of one single figure, or can be reduced to one by cutting

off cyphers from its right hand, the work may be easily performed in one line, thus :

Rule.

Drawing a line under the dividend, set down under its first figure, how often the divisor is contained in it : what remains imagine placed before the next figure, and, considering how often your divisor is contained in the sum it makes, set down the number underneath, as before, and so proceed through all the figures, set down what remains at last, in the place where your quotient used to stand.

Examples.

$$\begin{array}{r} 4 \overline{) 93645(1} \\ \underline{23411} \end{array}$$

$$\begin{array}{r} 12 \overline{) 83675(11} \\ \underline{6972} \end{array}$$

$$\begin{array}{r} 7100 \overline{) 563515} \\ \underline{805} \end{array}$$

If you are to divide several numbers by one common divisor (as in the calculating of tables, &c.) that you may know exactly at once how often your divisor will go, in some convenient corner make a table of your divisor, by multiplying it severally by all the nine digits; thus, suppose 562 your divisor :

562	1
1124	2
1686	3
2248	4
2810	5
3372	6
3934	7
4496	8
5058	9

Proofs of Division.

(11). Multiplication and division mutually prove each other : for as if you divide the product of a multiplication by the multiplier, the quotient will be the multiplicand; so, if you multiply the quotient of a division by the divisor (taking in the remainder) the product will be the dividend.

(2dly) Another proof of division is, by adding together those lines in the following example, marked with asterisks (being the particular products of the divisor, multiplied severally by each figure in the quotient, together with the remainder of the division) the total of which (if right) will be the dividend.

(3dly.) Division may also be proved as multiplication, by a cross; thus; casting out the nines from the divisor and quotient, place the remainders on its right and left sides; then multiplying the two figures so placed together and casting the nines from the product, and what's left to the remainder of the division, and still casting out the nines, let the overplus be placed at the top; then also casting the nines from the dividend, set down the figure remaining at the bottom, which if it agrees with that at top, the work may be supposed right. See each proof in the following

Example.

736)863256(	1172
736*	736
1272	7032
736*	3516
3	8204
736*	862592
5365	664 Remainder
5152*	
2136	
1472*	863256 1st Proof
664*	

863256 2d Proof

REDUCTION.

Reduction is that which brings together two or more numbers of different denominations into one denomination; or it serveth to change or alter numbers, money, weight, measure, or time, from one denomination to another; and likewise to abridge fractions to the lowest terms; all which is done so precisely, that

the first proportion remaineth without the least jot of error or wrong committed : so that it belongeth as well to fractions as integers ; of which in its proper place. Reduction is generally performed either by multiplication or division. From whence we may gather, That,

2. Reduction is either descending or ascending.

3. Reduction descending is, when it is required to reduce a sum or number of a greater denomination into a lesser, which number, when it is so reduced, shall be equal in value to the number first given in the greater denomination : as if it were required to know how many shillings, pence, or farthings, are equal in value to an hundred pounds ? or, how many ounces, are contained in 45 hundred weight ? or, how many days, hours, or minutes, there are in 240 years ? &c. And this kind of reduction is generally performed by multiplication.

4. Reduction ascending is, when it is required to reduce or bring a sum or number of a smaller denomination into a greater, which shall be equivalent to the given number ; as suppose it were required to find how many pence shillings or pounds, are equal in value to 43785 farthings ? or how many hundreds are equal to (or in) 3748 pounds, &c. And this kind of reduction is always performed by division.

6. When any sum or number is given to be reduced into another denomination, you are to consider whether it ought to be resolved by the rule descending or ascending, viz. by multiplication, or division. If it be to be performed by multiplication, consider how many parts of the denomination into which you would reduce it, are contained in an unit or integer of the given number, and multiply the said given number thereby, and the product thereof will be the answer to the question. As, if the question were, In 38 pounds how many shillings, here I consider, that in one pound are 20 shillings, and that the number of shillings in 38 pounds, will be 20 times 38 ; wherefore I multiply 38/. by 20, and the product is 760, and so many shillings are contained in 38 /. as in the margin.

But when there is a denomination or denominations between the number given and the number required,

you may, if you please, reduce it to the next inferior denomination, and then into the next lower than that, &c. until you have brought it into the denomination required. As for example; let it be demanded, In 132 pounds how many farthings? First, I multiply 132 (the number of pounds given) by 20 to bring it into shillings, and it makes 2640 shillings. Then do I multiply the shillings 2640 by 12 to bring them into pence, and it produceth 31680, and so many pence are contained in 2640 shillings, or 132 pounds. Then do I multiply the pence, viz. 31680 by 4, to bring them into farthings, (because 4 farthings is a penny) and I find the product thereof to be 126720, and so many farthings are equal in value to 132 pounds. The work is manifest in the margin.

$$\begin{array}{r}
 132 \text{ pounds} \\
 20 \\
 \hline
 2640 \text{ shillings} \\
 12 \\
 \hline
 31680 \\
 4 \\
 \hline
 126720 \text{ farthings}
 \end{array}$$

6. And if the number propounded to be reduced is to be divided, or wrought by the rule ascending, consider how many of the given numbers are equal to an unit or integer in that denomination to which you would reduce your given number, and make that your divisor, and the given number your dividend; and the quotient thence arising will be the number sought or required. As for example; let it be required to reduce 2640 shillings into pounds. Here I consider that 20 shillings are equal to one pound; wherefore I divide 2640, the given number, by 20, and the quotient is 132, and so many pounds are contained in 2640 shillings. In reduction descending and ascending, the learner is advised to take particular notice of the tables delivered in the former part of this book, where he may be informed what multipliers or divisors to make use of in the reducing of any number to any o-

$$\begin{array}{r}
 1. \\
 210) 26410 (132 \\
 \dots \\
 2 \\
 \hline
 6 \\
 6 \\
 \hline
 4 \\
 4 \\
 \hline
 (0)
 \end{array}$$

ther denomination whatsoever, especially English monies, weights, measures, time, and motion. But in this place it is not convenient to meddle with foreign coins, weights, or measures.

But if in reduction ascending it happen that there is a denomination, or denominations between the number given and the number required, then you may reduce your number given into the next superior denomination, and when it is so reduced, bring it into the next above that, and so on, until you have brought it into the denomination required. As for example;

Let it be demanded, In 126720 farthings how many pounds? First I divide my given number, being farthings, by 4, to bring them into pence, because 4 farthings make one penny; and there are 31680 pence. Then I divide 31680 pence by 12, and the quotient giveth 2640 shillings. And then I divide 2640 shillings by 20, and the quotient giveth 132/, which are equal in value to 126720 farthings. See the work.

126720	31680	2640	132
4	12	20	1
6	24	6	
4	72	6	
27	48	4	
24	48	4	
32	0	0	
32			
0			

7. When the number given to be reduced, consisteth of diverse denominations, as pounds, shillings, pence, and farthings, or of hundreds, quarters, pounds, and ounces, &c. then you are to reduce the highest, or greatest, denomination into the next inferior, and add thereunto the number standing in that denomination, which your greatest or highest number is reduced to. Then reduce

ARITHMETIC.

537

that sum into the next inferior denomination, adding thereto the number standing in that denomination. Do so until you have brought the number given into the denomination proposed. As, if it were required to reduce 48*l.* 13*s.* 10*d.* into pence: first I bring 48*l.* into shillings, by multiplying it by 20, and the product is 960 shillings; to which I add the 13 shillings, and they make 973. Then I multiply 973 by 12, to bring the shillings into pence, and they make 11676; to which I add the 10 pence, and they make 11686 pence for the answer. See the work done.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
	48	13	10
		20	
		960	shillings
Add		13	
		973	shillings
		12	
		11676	
		973	
		11686	pence

1. s. d.
 48—13—10
 20

 960 shillings
 Add 13

 Sum 973 shillings
 12

 1946
 973

Add 10

Sum 11686 pence

8. If in reduction ascending; after division is ended, any thing remain, such remainder is of the same denomination with the dividend.

Example. In 4783 farthings; I demand how many pounds? View the following operation.

First, I divide the given number of farthings (*viz.* 4783) by 4, to bring them into pence, and the quotient is 1195 pence; and there remaineth 3 after the work of division is ended, which is 3 farthings.

Again, I divide
1195 pence (the
said quotient) by
12, to reduce them

	12)	210)
4) 4783	(1195	(99 (4 pounds
	108	8
	115	19 shillings
	108	
38	Rem. 7 pence	
36		
23	Facit 4-19-7-3	
20		
Rem. 3 farthings		
M 3		

into shillings, and the quotient is 99 shillings; and there is a remainder of 7, which is 7 pence.

And then divide 99 shillings (the last quotient) by 20, to bring it into pounds, and the quotient is 4/. and there remaineth 19 shillings; so that I conclude that in 4783 (the proposed number of farthings) there is 4 pounds, 19 shillings, 7 pence 3 farthings.

More examples in reduction of coin.

Quest. In 438l. how many shillings? Facit 8760 shillings; for multiplying 438 by 20, the product amounteth to so much. See Facit 8760 shillings the work.

438 pounds
20

Quest. In 467 l. how many pence? First multiply the given number of pounds (467) by 20, to bring it into shillings; and it makes 9340 shillings; then multiply the shillings by 12, and it produceth 112080 pence, thus.

467 pounds
20
9340 shillings
12
1868
934

Facit 112080 pence

Or it may be resolved thus, viz. multiply the given number of pounds (467) by (240) the number of pence in a pound, and the product is the same, viz. 112080 pence; and by the operation appeareth.

467 pounds
240
1868
934

Facit 112080 pence

ARITHMETIC.

339

Quest. In 5673 l. how many farthings? First multiply the given number by 20, to bring it into shillings, and it produceth 113460 shillings; then multiply that product by 12, to bring it into pence, and it produceth 1361520 pence; then, lastly, multiply the pence by 4, and it produceth 5446080 farthings. See the operation. *Facit* 5446080 farthings

Or this question might have been thus resolved, viz. Multiply 5673 (the given number of pounds) by 960 (the number of farthings in a pound), and it produceth the same effect; as you see by the work:

5673 pounds	20 shillings
960	12
34038	240 pence
51057	4
<i>Facit</i> 5446080 farthings	960 farthings

Otherwise thus: First, bring the given number 5673 l. into shillings, and multiply the shillings by 48, the number of farthings in a shilling, and the same effect is thereby likewise produced, viz.

5673 pounds	12 pence
20	4
113460 shillings	48 farthings
48	
90768	
45384	
<i>Facit</i> 5446080 farthings	

These various ways of operation are expressed to inform the judgment of the learner with the reason of the rule. More ways may be shewn, but these are sufficient even for the meanest capacities.

	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>qrs.</i>
Quest. In 458 <i>l.</i> 16 <i>s.</i>	458	16	7	3
7 <i>d.</i> 3 <i>qrs.</i> how many farthings? To resolve this question, consider the seventh rule, and work as you are there directed, and you will find the foresaid given numbers to amount to 440479 farthings, viz.	20			
	9	60		
Add	16	shillings		
Sum	91	76	shillings	
	12			
	183	52		
	91	76		
	110	112		
Add	7	pence		
Sum	110	119	pence	
	4			
	440	476		
Add	3	farthings		
Sum	440	479	farthings	

This last question, or any other of this kind, viz where the number given to be reduced consisteth of several denominations, may be more concisely resolved thus, viz. When you multiply the pounds by 20, to bring them into shillings, to the product of the first figure add the figure standing in the place of units in the denomination of shillings; but because the first figure in the

Facit 440479 farthings

multiplier is 0, I say, 0 times 8 is nothing, but 6 is 6, which I put down for the first figure in the product. Then because the multiplier is 0, I go no further with it, for if I should, the whole product would be 0; but proceed. And when I come to multiply by the second figure in the multiplier, to the product of it I add the figure standing in the place of tens in the denomination of shillings, which is 1; saying, 2 times 8 is 16, and (the said figure) 17. Then I set down 7, and carry the unit to the product of the next figure, as has been directed before. So that now you may have the whole product and sum of shillings at one operation, which is the same as before. And when you multiply the shillings by 12, to bring them into pence, after the same manner, add to the product the number standing in the denomination of pence; and so when you multiply the pence by 4, to bring them into farthings, add to the product the number standing under the denomination of farthings. See the last question thus wrought on the margin of the preceeding page.

Reduction of troy weight.

We now come to give the learner some examples in troy weight; wherein we shall be brief, having given so large a taste of reduction in the former examples of coin. And now the learner must be mindful of the table of troy weight delivered in addition.

Quest. In 482 lb. 7 oz. 13 pw. 21 gr. how many grains?

Multiply by 12, by 20, and by 24, taking in the figures standing in the several denominations, according to the directions, given formerly and you will find the product to be 2780013 grains, which is the number required, or answer to the question. See the whole work as followeth.

ARITHMETIC.

l. oz. pw. gr.

482—7—13—21

12

971

482

5791 ounces

20

115833 penny wt.

24

463333

231668

Facit 2780013

Quest. In 2780013 grains, I demand how many pounds, ounces, penny weights, and grains?

This is but the foregoing question inverted, and is resolved by dividing by 24, by 20, and by 12; and the answer is 482 lb. 7 oz. 13 pw. 21 gr.

24)2780013	(115833	(5791	(482
.....			
24	10	48	
38	15	99	
24	14	96	
140	18	31	
120	18	24	
200	3		
192	2		
81			
72			
93			
72			

Rem. 7 ounces

Rem. 13 penny-weight

l. oz. pw. gr.

Facit 482—7—13—21

Remains 21 grains.

ARITHMETIC.

143

Reduction of avoirdupois weight.

In reducing of avoirdupois weight, the learner must have recourse to the table of avoirdupois weight delivered before.

Quest. In 47 C. 1 qr. 20 lb. How many ounces? Multiply by 4, by 28, and by 16; and the last product will be the answer, viz. 84992 ounces.

C. gr. lb.

47—1—20

4

189 quar.

28

1512

380

5312

16

32872

5312

Facit 84992 oz.

Quest. In 84992 ounces, I demand how many C. qrs. lb. and oz.?

This is the foregoing question inverted, and will be resolved if you divide by 16, by 28, and by 4; and the answer is 47 C. 1 qr. 20 lb. equal to the given number in the foregoing question.

16)84992

28)

(5312

4)

(189

C. qrs. lb. oz.

(47—1—20—0

80

28

16

49

251

29

48

224

29

19

272

1 qr.

16

252

32

20 pounds

32

(0)

Reduction of liquid measure.

Quest. In 45 tuns of wine, how many gallons? Multiply by 4, and 63; the product is 11340 gallons for the answer.

$$\begin{array}{r}
 45 \\
 \times 4 \\
 \hline
 180 \\
 \times 63 \\
 \hline
 54 \\
 108 \\
 \hline
 \end{array}$$

Facit 11340

Quest. In 34 rundlets of wine, each containing 18 gallons, I demand how many hog sheads?

First, find how many gallons are in the 34 rundlets, which you may do if you multiply 34 by 18, the content of a rundlet, and the product is 612 gallons, which you may reduce into hogheads, if you divide them by 63, and the quote will be 9 hogheads, and 45 gallons. See the work.

$$\begin{array}{r}
 34 \\
 \times 18 \\
 \hline
 272 \\
 34 \\
 \hline
 612 \text{ (9 hdds.)} \\
 \times 63 \\
 \hline
 567 \\
 \hline
 \end{array}$$

Rem 45 gallons.

Facit 9 hdds. 45 gallons.

ARITHMETIC.

145

Quest. In 12 tuns, how many rundlets of 14 gallons per rundlet?

Reduce your tuns into gallons, and divide them by 14, the gallons in a rundlet, and the quotient, 216, is your answer; See the work.

$$\begin{array}{r} 12 \\ 4 \\ \hline 48 \\ 63 \\ \hline 144 \\ 288 \end{array}$$

14) 3024 (216 rundlets

28

22

14

84

84

(0)

Facit 216 rundlets

Reduction of long measure.

Quest. I demand how many furlongs, poles, inches, and barley-corns will reach from London to York, it being accounted 151 miles.

151 miles

8 furlongs in a mile!

1208 furlongs

40 poles in a furlong

48320 poles

11 half-yards in a pole

4832

4832

531520 half-yards

18 inches in a half-yard

425216

53152

9567360 inches

3 barley-corns in an inch

Facit 28702080

Ques. The circumference of the earth (as all other circles are) is divided into 360 degrees, and each degree into 60 minutes, which, upon the superficies of the earth, are equal to 60 miles; now I demand how many miles, furlongs, perches, yards, feet, and barley-corns, will reach round the globe of the earth?

Ans. 28702080
28702080

ARITHMETIC.

127

360 degrees
60 minutes or miles in a degree

21600 miles about the earth
8 furlongs in a mile

172800 furlongs about the earth
40 perches in a furlong

6912000 poles or perches about the earth
11 half-yards in a perch

6912
6912

2) 76032000 half-yards about the earth

(38016000 yards, viz. the half-yard divided
3 by 2

114048000 feet about the earth
12 inches in a foot

228096
114048

1368576000 inches about the earth
3 barley-corns in an inch

Facit 4105728000 barley-corns

And so many will reach round the world, the whole being 21600 miles. So that if any person were to go round, and go 15 miles every day, he would go the whole circumference in 1440 days, which is 3 years, 21 months and 15 days.

Reduction of time.

Quest. In 28 years, 24 weeks, 4 days, 16 hours, 30 minutes, how many minutes?

N. 2

ARITHMETIC.

Years, weeks, days, hours, minutes.

28—24—4—16—30

52 weeks in a year

60

142

1480 weeks

7

10364 days

24

41462

20729

248752 hours

60

14925150 minutes

Note, That in resolving the last question after the method expressed, there are lost in every year 30 hours: for the year consisteth of 365 days and 6 hours; but by multiplying the year by 52 weeks, which is 364 days, you lose 1 day and 6 hours every year. Wherefore, to find an exact answer, bring the odd weeks, days and hours, into hours, and then multiply the year by the number of hours in a year, viz. 8766, and to the product add the hours contained in the odd time, and you have the exact time in hours; which bring into minutes as before. See the last question thus resolved.

	<i>Days. hours.</i>	<i>Weeks. days. hours.</i>
28	365—6	24—4—16
8766	24	7
172	1466	172
172	730	24
197		
228	8766 hours in a year	694
		345
249592 hours		
60		4144
14975520 minutes in 28 years and 4144 hours		

So you see, that, according to the method first used to resolve this question, the hours contained in the given time, are 248752; but according to the last, best, or truest method, they are 249592, which exceeds the former by 840 hours.

But for most occasions it will be sufficient to multiply the given years by 365; and to the product add the days in the odd time, if there be any, and then there will be only a loss of six hours in every year; which may be supplied by taking a fourth part of the given years, and adding it to the contained days, and you have your desire.

The Golden Rule; or, Rule of Three Direct

IS so called from its extraordinary usefulness, not only in arithmetical questions, but in all parts of the mathematics.

It is also called *the rule of three*, because there are always three numbers given to find out a fourth; and it is properly called *the rule of proportion*, because the first number bears such proportion to the second, as the third does to the fourth.

The design of this rule is, to shew how to find a fourth proportional number, by having three given numbers; which is deducible from the *sixteenth proposition of the sixth book of Euclid's elements*.

The Rule is,

Multiply the second and third numbers together, and divide the product by the first number, and the quotient thence arising is the fourth number sought. Or,

Divide the second number by the first, and multiply the quotient by the third, and the product is the number required: for the fourth number contains the third so often as the second contains the first. And this is called *direct proportion*.

All questions in this *rule of three* consist of three numbers, whereof two are always of one kind or denomination: As in this example.

If I give 10s. for 5 yards, what shall I give for 15 yards at the same rate?

Now two of these are of the same kind, that is, the number 5 and 15, which are both yards, which place thus. The number, concerning which the question is asked, must be in the third place.

Now in this question the 15 yards is the number, and the price of which the question requires the value, place it therefore in the third place.

Then seek out the other number of the same kind or denomination, which must be yards also, which in this question is 5: set this in the first place, and then the other number, that is 10s. will consequently claim the second place, and the answer to the question will be always of the same denomination with it, which here is shillings.

Now the question stated according to the foregoing rules stands thus,

If 5 yards cost 10s. what will 15 yards cost?

5) 150 (30s. Answer

00

Multiply the second number by the third, and divide the product by the first.

Note, That the three numbers are 5, 10, 15.

Proof of the last question.

What shall I pay for 5 yards, when 15 yards are sold for 30 shillings?

If 15 yards cost 30s. what will 5 yards cost?

15) 150 (10s. Answer

15

00

What is the interest of 75 pounds at the rate of 8 l. per cent. per annum?

The numbers will be stated thus:

L. P.	L. L.	L. P.
100	8	75

In this example there are two numbers that are principal money, and one that is interest; therefore the interest (according to the rule) must stand in the middle, or second place; the principal on which the interest dependeth, viz. 100 l. (8 l. being the interest thereof) must stand in the first place towards the left-hand, and the other principal on which the fourth number (which is the number sought for) dependeth, must possess the first place towards the right-hand.

By these rules foregoing, you may with ease and certainty perform any operation in direct proportion; and for your further information take the examples following.

Example. If the interest of 100 l. for one year be 8 l. what is the interest of 75 l. for the same time?

L. P.	L. I.	L. P.
100	8	75

Example. If 32 rundlets of brandy cost 96 l. what will 4 rundlets cost at that rate?

Answer. 12 l.

Example. If 32 rundlets of brandy cost 96 l. what will 4 rundlets cost at that rate?

Answer. 12 l.

64

o Remains

Example. If 12 bags of cotton wool cost 148l. what will 17 bags cost?

Bags L. Bags
12 184 17

17

1288

l. s. d.

184

260 13 4 Answer

10)3128(260l.

72

8 Pounds remain

20 Shillings multiply

12)160(13 Shillings

40

4 Shillings remain

12 Pence multiply

12)48(4 Pence

0 Remains 8

Note, That after the last example, when any thing remains that is reduced to a lower denomination, after it is so reduced, it must be divided continually by the first number.

Case] When any of the three given numbers happen to be of divers denominations

Rule] You may reduce them into the lowest denomination. And if your first number require to be reduced, your third must be reduced likewise into the same denomination as the first: for the first and third number before you begin your operation, must be always of one name or denomination.

ARITHMETIC.

153

Example If 17 hog heads of sugar cost 320 l. 12 s. what will 5 of these hog heads be worth?

Hhds. l. s. Hhds
 17 320 12 5
 20

6412 Shillings } Multiply
 5 Hhds

210) 1 s d q
 17) 32060 (18815 94 5 10 2-7

150 8
 146 0 Remains
 100

15 Shillings remain } Multiply
 12 Pence in a shilling

30
 15

17) 180 (10 Pence
 10 Pence remain } Multiply
 4 Farthings 1 Penny

17) 40 (2 Farthings

6 Farth. remain to be divided by 7

Note, That when you have multiplied the second and third numbers together, and divided the product by the first, the quotient is of the same denomination as the second number is, after you have reduced it (as in the last example) into its lowest denomination given.

Example. If 4 G 1 qr 24 lb of sugar cost 14 l. what will 18 G cost?

C	qr	lb	s	d	C
4	1	24	14	18	
4				18	
42				18	
45				18	

500 lb of sugar 2016 lb of sugar } Multiply
 14 / sterling

8064
 2016

5100) 22124 (56 8 11 2 $\frac{40}{100}$ Answer

22

224 Pounds remain } Multiply
 20 Shillings in 1

5100) 44816 (8 Shillings

480 Shillings remain } Multiply
 12 Pence in 1

960
 480

5100) 57160 (11 Pence

7

200 Pence remain } Multiply
 4 Farthings in 1

5100) 10140 (2 Qrs

40 Farthings remain to be divided
 by 500

ARITHMETIC.

185

Note farther, That what farthings remain, to be divided by the common divisor, [as in the last example] because you can reduce them into no lower denomination, you may place them over your divisor, as fractions of a farthing, which shall be explained when we come to treat of vulgar fractions, &c.

Case.] When the first number of the three given, is but an unit, the operation is performed by multiplication only.

Example. If I give 15 s for a pound of thread, what will 250 lb cost at that rate?

lb	s	lb
1	15	250

15

1850
250

3750s Answer, or 187/10s

Example. At 14/ 10s 6d per bag of hops, what cost 55 bags?

Bag 14/ 10s 6d Bags 55

14 10 6 55

20

290 Shillings

12

3486 Pence

55 the 3d number } Multiply

17430

17430

191730 Pence Ans. or 158/ 17/ 6d

Case.] When the third number of the three given [or that towards the right hand] is an unit, such operation is performed by division only; if the number need no reducing.

Example. If 40 pieces of broad cloth cost 798/ what will one piece cost?

ARITHMETIC.

Pieces / Pieces

40

590

1

410)5910(14 $\frac{1}{2}$ or 14 $\frac{1}{2}$ Answer

79

30 Pounds remain

If one bushel of rye cost 3s 6d, what will a last or 10 quarters cost after that rate?

First reduce the 3s 6d into pence, that is 42d, and the 10 quarters into bushels, that is 80, and set the question thus:

If 1 bushel cost 42d, what will 80 cost?

80

3360

The first number, or place being 1, will neither multiply nor divide, then bring the 3360d into shillings by dividing by 12, as followeth.

12)3360(280 Shillings

310)2810(141

24

20

96

80

96

80

0

14

0

20

For the proof of this, and the like questions, reduce the answer into pence, to know whether your work be right, as appears in the work.

280

12

3360

If I paid 43s 1 for 525 quarters of malt, what is the price of 1 quarter after that rate?

Which being stated stands thus,

If 525 quarters cost 432l what will 1 quarter cost?

In this question you cannot multiply the second number by the third, because the third number [or place] is but one.

Therefore to perform this question with ease, reduce 432l into farthings by reduction, which makes 414720 farthings to be divided, which divide by 525, the quarters of malt, and the quotient, the answer, is 789 farthings; the remainder after the division is ended, are but the parts of a farthing.

Lastly, The 789 farthings being reduced, are 16s. $5\frac{1}{2}d$. Therefore, if 525 quarters of malt [or tods of wool or goods] be sold for 432l. one quarter will cost 16s. $5\frac{1}{2}d$. after that rate. Or, which is better, reduce the 432l. into shillings, and it gives 8640, which divide by 525, and the quotient is 16, and the remainder 240, which multiply by 12 the product is 2880, which divide by 525, the quotient is 5 pence, and the remainder 255; that multiplied by 4, and the product 1020 divided as before, gives 1 farthing, and $\frac{221}{525}$ parts of another farthing.

If a grocer bought $5\frac{1}{2}$ C. weight of nutmegs, which cost him 163l. 13s. 8d. how may he sell one pound weight without gain or loss?

Reduce the money into pence, it makes 39284d. for the dividend, and $5\frac{1}{2}$ C. weight into pound weights by reduction, makes 644 pound weight for the divisor; then divide the 39284 by 644, and the quotient gives 61 pence, the price of one pound, viz. 5s. 1d.

Note, That what sum of money you desire to gain, add it to the price, and work as above, to know what you get by every single pound.

Suppose the yearly rent of 20l. belonging to 7 landlords

Reduce the 20l. into farthings, and they are 19200, which divide by 7, the quotient gives 2742 $\frac{2}{7}$ farthings for each landlord, from which you may subtract the taxes.

By the same rule you may draw a comparison of debts; for if a man owe to several creditors, as suppose it comes to in all 35l. 16s. reduce it into farthings, and divide it by the number of pounds owing, &c. As,

Suppose a man leaveth 131
to pay his debts, and he owes
one man 51 the second 61 and
the third 71 which makes 181
what is each man's share?

	<i>l</i>	<i>s</i>	<i>d</i>	<i>q</i>
To the first	3	12	2	2
—Second	4	06	8	0
—Third	5	01	1	2
	13	00	0	0

If 28 quarters of barley cost 30*l* 10*s* 6*d*, tell me what
84 quarters come to at that rate?

28 qrs cost 30*l* 10*s* 6*d*, what will 84 qrs cost?

	<i>20</i>	<i>12</i>
Shillings	610	28) 615384 (21978 pence
	12	56
	1226	55
	610	28
		£ 91—11—6
		273
Pence 7326	252	
84		
	218	
	196	
	224	
	224	
Sum 615384	(0)	

84 qrs comes to 91*l* 11*s* 6*d*

	<i>20</i>
	1831
	72
	3668
	1831
	21978

How many yards of cloth shall I buy for 21*l* 10*s* 11*d*
when 21 are sold for 2*l* 14*s* 3*d*?

First, reduce the 2*l* 14*s* 3*d* into farthings, which
make 2604, for the first number; next, the 3 yards and

an half into quarters, which make 14 for the second number, and the 21/10s $1\frac{1}{2}d$. and it makes 20646 farthings; then multiply that by 14, and the product is 289044, to be divided by 2604, and the quotient gives 111 quarters of yards, to divide by 4, (the quarters in a yard) and the quotient is 27 yards $\frac{3}{4}$, viz. 3 quarters, answer.

Thus stated being reduced.

Farthings	Quarters	Farthings
2604	14	20646
		14

If one pound of iron cost $3\frac{3}{4}d$, what will
7 C 3 qrs 17 lb cost?

$$\begin{array}{r}
 4 \\
 \hline
 30 \text{ qrs of an hundred} \\
 28 \text{ lbs in } \frac{1}{4} \text{ of an C} \\
 \hline
 \text{take in } 12 \text{ lb} \\
 255 \\
 63 \\
 \hline
 \end{array}$$

Pounds 685 in 7 C 3 qrs 17 lb
14 farthings in 350

$$\begin{array}{r}
 3540 \\
 885 \\
 \hline
 4) 12390 \text{ farthings answer} \\
 12) 3097 \frac{3}{4} \\
 210) 2518 \text{ 1} \\
 \hline
 \end{array}$$

Answer £ 12 18 1½

Note, That this example may serve for a rule to reduce hundreds, quarters, and pounds into pounds; but most tradesmen set the weights in short, thus, 7—3—17 instead of setting them as above 7 C 3 qrs 17 lb

Besides this way of proof, of reducing the total to farthings again, is most necessary for young learners, in most of the questions in the rule of three.

The Indirect Rule of Three

IN the *indirect rule of three*, the numbers are in reciprocal proportion, that is, the fourth number to be found, is to bear the same ratio to the second as the third does to the first, but in an inverted order; that is, the greater the third term is in respect to the first, the less must the fourth be in respect to the second.

This rule differs in its operation, from the direct, in that, after the question is stated, and the numbers of the statings prepared (as in the direct rule) your first and second must be multiplied together, and your third number be your divisor. The quotient, as before, will be the answer.

EXAMPLES.

Ex. 1. *What number of men must be employed to finish in 12 days, what 43 men would be 35 days about?*

days	men	days
35	43	12
43		
—		
105		
140		
—		
12)1505		
—		

Answer, 125 men

Ex. 2. *How many yards of stuff 3 grs wide, will hang a room which requires 420 yards of 5 grs wide?*

grs	yds	grs
5	420	3
5		
—		
3)2100		
—		

Ans. 700

The reason of this operation will appear plain (after what has been said in the direct rule) by considering the last example. Now it is clear, that if of the stuff, being 5 quarters wide, there are 420 yards required, then were the stuff but 1 quarter wide, 5 times 420 yards, viz. 2100 yards must be allowed; consequently, if the stuff be 3 quarters wide, one third part of those yards will be sufficient; therefore 2100 divided by 3, will give the true answer required, viz. 700 yards.

To know whether a question belongs to the Direct or Indirect Rule of Three.

Observe, If the third number, being more than the first number requires more, or, being less, requires less, it is *Direct*; but if the third number, being more, requires less, or being less, requires more, it is *Indirect*.

Or, without any regard to the distinction of *Direct* and *Indirect*, if *more* is required, let the lesser of the two extremes be the divisor, if *less*, the greater.

More questions of the Indirect Rule of Three.

If I lend A 136l for 3 months, how long must I keep 42l of his, to requite myself?

Answer, 9 months, 2 weeks, 6 days.

If 46 clerks in 32 days finish a piece of writing, in what time would 55 clerks accomplish the same?

Answer, 26 day, 9 hours, 9 minutes.

A garrison, consisting of 1539 men, being besieged, hath provision only for 12 days; but it being necessary they should hold out three weeks, how many men must be sent out?

Answer, 660 men:

The Double Rule of Three.

Questions in this rule have five numbers proposed and are frequently answered by two statings, tho' they may be performed by one as shall be shewn hereafter.

EXAMPLES.

Ex. 1. The carriage of 32 hundred weight 56 miles comes to 12s. After the same rate, what must I pay to have 78 hundred weight carried 94 miles?

Ans. If 32 ——— 12 ——— 78

12

32) 936 (29 — 3 facit

64

296

288

Then, If 56 — 29 — 3 — 94

•• 8

351

32) 96 (3

96

1404

3759

32) 32994 (589

280

13) 589 (45

499

448

514

504

10

ARITHMETIC.

163

Note, The solution had been the same, if the miles had been made first and third numbers of the first stating; and the C weights the first and third numbers of the last.

Note also, this example may be done by one stating, thus :

$$\begin{array}{r}
 \begin{array}{c} C \quad , \quad d \\ \text{If } 32 \text{ --- } 12 \text{ --- } 78 \\ 56 \text{ Miles} \quad 94 \text{ Miles} \end{array} \\
 \hline
 \begin{array}{r} 192 \\ 160 \\ \hline 352 \end{array}
 \end{array}$$

$$\begin{array}{r}
 1792 \quad 87684(49 \quad 1792 \\
 7168 \\
 \hline
 16304 \\
 16128 \\
 \hline
 176 \\
 12
 \end{array}$$

$$\begin{array}{r}
 1792(2112(1 \\
 1792 \\
 \hline
 320
 \end{array}$$

Ex. 2. How many men must be employed to reap 420 acres in 17 days, if there were required 37 men to reap 54 acres in 5 days?

$$\begin{array}{r} \text{Acres} \quad \text{Men} \quad \text{Acres.} \\ \text{First, If } 54 \text{ --- } 37 \text{ --- } 420 \\ \hline 2940 \\ \hline 1260 \end{array}$$

$$\begin{array}{r} \text{Days} \quad \text{Men} \quad \text{Days} \\ \text{Then, If } 5 \text{ --- } 287 \text{ --- } 17 \quad 54 \text{ --- } 15540 \text{ (287} \\ \hline 5 \quad \quad \quad 108 \end{array}$$

$$\begin{array}{r} 17 \overline{) 1435 (84} \quad 474 \\ 136 \quad \quad 432 \\ \hline 75 \quad \quad 420 \\ 68 \quad \quad 378 \\ \hline \end{array}$$

Ans. 84 Men $\cdot 7$

$\cdot 42$

Note. If you would work such questions of the *double Rule of Three* as have one of their proportions indirect, by one stating; you must multiply the third number of your stating, by that number you would otherwise have placed under the first; and your first number by that you would have placed under the third; as in the following example.

EXAMPLE.

$$\begin{array}{r} \text{Acres} \quad \text{Men} \quad \text{Acres} \\ \text{If } 54 \text{ --- } 37 \text{ --- } 420 \\ \cdot 17 \quad \quad \quad 5 \end{array} \left. \begin{array}{l} \\ \\ \end{array} \right\} \begin{array}{l} \text{The number of days which} \\ \text{have relation to the } 54 \text{ acres} \end{array}$$

$$\begin{array}{r} 378 \\ 54 \end{array} \quad \begin{array}{r} 2100 \\ 37 \end{array}$$

$$\begin{array}{r} 918 \quad \quad 14700 \\ 6300 \end{array}$$

$$\begin{array}{r} \text{The number of days } 918 \text{ --- } 77700 \text{ (84 answer as before} \\ \text{which have} \quad \quad 7344 \\ \text{relation to} \quad \quad \quad \hline 420 \text{ acres.} \quad \quad 4260 \\ \quad \quad \quad 3672 \\ \quad \quad \quad \hline 588 \end{array}$$

OF EXCHANGE.

HAVING explained the nature of the Rule of Three, and the manner of resolving questions therein, I am naturally led to treat of its particular use in the exchange of coins.

In the exchange of coins, it is necessary that the par or value of the money in each place be exactly known: for the word *par* signifies to equalize the money of exchange from one place with that of another place. As when I take up so much money *per* exchange in one place, to pay the just value thereof in another kind of money in another place, without having respect to the price current of exchange for the same, but only to what the money does currently pass for in each place. From whence may be easily found out the profit and loss of all monies drawn or remitted by exchange. But this *par* being grounded principally upon the current value of coin, the plenty and scarcity thereof, the rising and falling, inancement and debasing of the same, it must necessarily follow, that the value of coin is subject unto change. An example whereof you have in *France*, where their coin has been changed, inanced, and lowered, several times in a few years: and in the year 1720, the *French* crown, which was sixty sous or three livres, is now raised to seventy five sous, or three livres, fifteen sous.

The denomination in which England, and the following places exchange each with other are, viz.

The exchange of monies from *London* to *Antwerp*, *Amsterdam*, *Hamburgh*, *Lisle*, *Middleburgh*, and other parts of *Flanders* and *Holland*, is valued on the pound sterling of 20 shillings: that is, to pay after the rate of so many shillings and pence *Flemish*, for every pound sterling.

The exchange from *London* to *Paris*, *Rouen*, and most parts of *France*, is valued on the *French* crown at 54*d.* that is to pay so many pence, or so many shillings and pence sterling, for the *French* crown.

The exchange from *London* to *Venice* is made on the ducat at 52*d.* sterling, to pay so many pence and parts of a penny sterling for every ducat.

The exchange from *London* to *Leghorn*, *Genoa*, *Calais*, *Madrid*, and other parts of *Spain*, is made on the dollar or piece of eight, at 54d sterling, that is, to pay so many pence or parts of a penny sterling for every dollar.

The par at *Antwerp*, *Amsterdam*, *Hamburgh*, *Liste*, *Middleburgh*, and other parts of *Flanders*, with one pound sterling, is thirty three shillings four pence *Flemish*, for a pound sterling; which thirty three shillings four pence do make 10 guilders at two shillings sterling the guilder, or 10 livres *Turnois*.

The par at *Paris*, *Roan*, and other ports of *France*, has been reckoned sometimes at 71 sous the crown of 3 livres, *Turnois*, generally at 60 sous the crown of 3 livres, every livre valued at 1 shilling sixpence sterling, the crown valued at 4s 6d sterling.

The par at *Leghorn*, *Madrid*, *Calais*, *Genoa*, is at 54 pence sterling for the dollar or piece of eight.

The par at *Venice* with our sterling money is at 6 livres, 4 sous of *Venice* per ducat, or 51 pence sterling, sometimes 52 pence.

The *Hamburgh* par is sometimes reckoned at 4 rix dollars and a half, which makes 32 shillings *Flemish* for 20 shillings sterling.

The par at *Lisbon* is at 6s 8½d on the milrea or 1000 reis.

The par at *Oporto* is the same as that at *Lisbon*.

The value of the most usual coins with which England does chiefly exchange, are, viz.

		Sterling money.	
		s.	d.
Holland and Flanders	1 Stiver is	—	0—1½
	6 Stivers of 1 shilling <i>Flemish</i> is	—	0—7½
	1 <i>Flemish</i> shilling	—	0—8
	20 Stivers is 1 guilder, or	—	2—0
	4 Guilders 1 pound <i>Flemish</i> , 20s. is	12	0
	33 Shillings 4d <i>Flemish</i> is	20	0
	1 <i>England</i> common dollar is	3	0
	1 Ducatoon	5	6
	1 specie dollar	5	0

ARITHMETIC.

167

Sterling money.

<i>France</i>			<i>s.</i>	<i>d.</i>
{	12 Deniers, or 1 soluz is	— — —	0	3 $\frac{1}{2}$
	20 Soluz or livre is	— — —	1	6
	3 Livres, or a <i>French</i> crown	—	4	6

<i>Spanish money</i>			<i>s.</i>	<i>d.</i>
{	13 $\frac{77}{100}$ Malvadees	— — —	0	0 $\frac{1}{2}$
	372 Malvadees, or 1 Royal	—	0	6 $\frac{1}{2}$
	7 $\frac{10}{17}$ Royals is 1 ducat	— — —	4	4
	8 Royal or piece of copper	— — —	4	6
	1 Royal copper	— — —	3	0
	17 $\frac{1}{2}$ ditto copper is 1 piece of eight, or	—	4	6

<i>Portug.</i>			<i>s.</i>	<i>d.</i>
{	12 $\frac{1}{2}$ Reas of Portugal	— — —	0	1
	1 Milrea, or 1000 reas	— — —	6	8 $\frac{1}{2}$
	1 Testoon is	— — —	1	3

<i>Italy</i>			<i>s.</i>	<i>d.</i>
{	1 Livre at Leghorn is	— — —	0	9
	1 Crown current at Florence is	— — —	5	3
	1 Ducat du banco at Venice	— — —	4	4
	1 St Mark	— — —	2	10
	1 Palermo florin is	— — —	2	6

<i>Germany</i>			<i>s.</i>	<i>d.</i>
{	1 Rix-dollar of the empire	— — —	4	5 $\frac{1}{2}$
	4 $\frac{1}{2}$ Rix-dollars makes 32 <i>Flem.</i>	{	20	0
	at <i>Hamburg</i> , &c.			
	1 Guilder of <i>Norimburg</i>	— — —	7	1

A merchant in London remits to Rotterdam 375 $\frac{1}{2}$ 10s sterling, at 34s 8d for 20s sterling, How many Guilders Flemish must be paid at Rotterdam, and what is gained per exchange?

s.	s.	d.	l.	s.	d.
20	35	8 <i>Flem.</i>	what 375	10	0
	12		20		
	416		7510		
			416		
			45060		
			7510		
			30040		
<i>Guilders, stivers.</i>		210	3124	610	
<i>Answ.</i> 3905—4			2)	156208	
				210	781014
					3905

To find the gain or loss in one pound, subtract 33s. 4d. out of 34s. 8d. the course of exchange, the difference is 1s. 4d. *Flemish* per pound, and so much gain is the course of exchange in our favour.

If the course of exchange be under par, it must by parity of reason become a loss to us, and then the course of exchange is to our prejudice.

The like to be observed for the coins exchanged in all other countries.

I will give but one example of loss by exchange, by which, with the foregoing example of gain, the ingenious may with ease, travel through the general course of exchange with all countries.

A merchant in *London* remits a bill of exchange to *Amsterdam* for 297*l.* 15*s.* sterling, at 31*s.* 10*d.* *Flemish* for 20*s.* sterling. I demand how much *Flemish* money was paid for the said bill at *Amsterdam*, and what is lost per pound by exchange?

s.	s.	d.	l.	s.
20	31	3 <i>Flem.</i>	297	15 sterling
		<i>Guild.</i>		<i>Shill.</i>

Answer, 279*l.* 8 paid, and 2*s.* 1*d.* *Flemish* per pound lost by the exchange.

Arithmetical Progression.

IS when a rank or series of numbers differ orderly from one another, by some common number.

To find the sum of any arithmetical progression, add the first and last numbers together, and multiply that sum by half the number of places, and that product is the sum. But if the number of places be odd, multiply the said number of places by half of the first and last added, and that product is the sum.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.

What the sum?

16 Last
1 First

17 Sum

8 Half of the number of places

136 Sum of the whole

Suppose a man hireth a room for a year, and agreeth to pay the first week 5d. the second week 9d. and for the third week 13d. so paying every week 4d. more until 52 weeks or a year is finished, I demand what the rent will come to?

Answer 23*l.* 3*s.* 8*d.*

Here you are to consider that the common increasing number is 4*d.* so that the last week must amount to 51 times 4. added to the pay of the first week, which is 5*d.* then will the last week come to 209 pence, then work as in the example.

	51	12(5564)4639
	4	48
Product	204	76
	5	72
Added	209 the last week	44
	5 the first week	36
Added	244	8d.
	26 half weeks in the year	210)4613(23l. 3s. 8d.
	1284	
	428	
Pence	5564	

Geometrical Progression.

Suppose one sold 12 ells of cloth. to receive for the first ell 1d. the second 2d. the third 4d. and so doubling, what is paid for the 12 ells?

0, 1, 2, 4, 3, 5, 6.
1, 2, 4, 8, 16, 32, 64.
32
128
192
2084

Answer 1096 Pence

Now, that if this question had been for a farthing a button, or the like, the answer would have been farthings.

Suppose one sold a horse having 4 shoes, and every shoe 6 nails, to receive for the first nail 1 farthing, the second nail 2 farthings, the third nail a penny, and so

ARITHMETIC.

171

doubling, how much is paid for the last nail, and the price of the horse ?

Answer 174761. 5s.

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096
4096

12288

18432

81920

8388608

2

Varishings 16777216

Or if this question had been of a coat sold at a barley-corn a button, and so doubling to 24 buttons (accounting 900 corns to a pint) I divide the 16777216 by the 900 corns, the quotient gives about 11641 pints, which divide by 64 (the pints in a bushel) the quotient gives about 262 bushels, or about 36 quarters of barley for the coat.

The Rule of Fellowship or Company.

MAY fitly be divided into gain, loss, and time.

Ageneral Rule.

As general stock to general profit bears.

So each man's stock in general profit shares.

That is to say,

Every man's particular stock being added together, the total must be the first number in the rule of three, the gains the second, and every man's particular stock the third ; as,

Suppose two booksellers in company, Y laid in 20/. Z laid in 40/. whereby was gained 50/. what is each man's part of the gain ?

$$\begin{array}{r} \hline Y \ 20 \\ Z \ 40 \\ \hline 60 \end{array}$$

If 60/ gain 50/. what will 20/ gain?

$$\begin{array}{r} 20 \\ \hline 60 \overline{) 1000} (16 \ 13 \ 4 \\ \underline{60} \\ 40 \\ \underline{36} \\ 4 \end{array}$$

If 60/ gain 50/ what will 40/ gain?

$$\begin{array}{r} 40 \\ \hline 60 \overline{) 2000} (33 \ 6 \ 8 \\ \underline{18} \\ 20 \\ \underline{18} \\ 2 \end{array}$$

$$\begin{array}{r} 1 \ 1 \ 8 \\ 33 \ 06 \ 8 \\ 16 \ 13 \ 4 \\ \hline \text{Proof } 50 \end{array}$$

Suppose two merchants make a stock, *B* laid in 45/ and *C* laid in 68/. whereby was gained 32/. how must the gain be divided?

If 113/ gain 32/ what will 45/ gain?

$$\begin{array}{r} \hline B \ 45 \\ C \ 68 \\ \hline 113 \end{array}$$

$$\begin{array}{r} 45 \\ \hline 113 \overline{) 160} \\ \underline{128} \\ 32 \end{array}$$

113/ 1440 (12/ 14 B's part

$$\begin{array}{r} 113 \\ \hline 310 \\ \underline{226} \\ 84 \end{array}$$

ARITHMETIC.

173

If 113/ gain 32/, what will 68 gain ?

68

256

192

113)2176(19/ 11/ 11/ C's part

113

1046

1017

29

The 29 of the fraction multiplied by 240, [the pence in 20/] and the product divided 113, the quotient tells the pence.

Suppose three merchants, F, G, and C, join their monies to make a stock of 25000/ of which F laid in 10000/ G 8000/ and C 7000/: with this [after a certain time of trading] they gained 7500/. how must this be parted ?

If 25000/ gain 7500/, what will 10000/ gain?

10000

251000)750001000(3000/ F's part

75

00000

If 25000/ gain 7500/, what will 8000/ gain ?

8000

251000)60001000(2400/ G's part

50

100

100

0

If 808 gain 50l what will 4081 gain ?

4081
 808)20400(25/ $\frac{100}{8}$ B's part
 1616

4240

4040

200

Suppose three farmers, as *A*, *B* and *C* hold a pasture, for which they pay 45l per annum, *A* hath 24 oxen 32 days, *B* hath 12 there 48 days, and *C* fed 16 oxen there 49 days, what must every man pay of the rent ?

Oxen	Days	
<i>A</i> 24	32	Multiplied by { give {
<i>B</i> 12	48	
<i>C</i> 16	49	
		{ 768
		{ 576
		{ 384

1728

RULES of PRACTICE.

The even parts

Of a pound

s	d	l
10	0	1
6	8	
5	0	
4	0	
3	4	
2	6	
2	0	
1	8	

Of a shill.

d	s
6	
4	
3	
2	
1	
1	

Of a hund.

lb	C
56	
84	
28	
14	
16	
8	
7	

1. When the given price is pence, take your parts in shillings, the product divided by 20 gives the answer in pounds.

Or, You may bring it into pounds, at once, by cutting off the last figure, and by considering that 240 pence is 1 pound, whereof 8d is $\frac{1}{3}$, 6d is $\frac{1}{2}$, 4d is $\frac{2}{3}$, 3d is $\frac{1}{4}$, 2d is $\frac{1}{2}$.

EXAMPLES.

254 lb. of tobacco at 1d	716 ells at 3d
$\frac{1}{2}$ 211 2d	d. $\frac{1}{2}$ s d
1 1—1—2 Facit	$\frac{3}{20}$ 18—19—0 Facit
254 lb. at 2d	235 lb. at 4d
$\frac{1}{2}$ 42—4	d. $\frac{1}{2}$ s d
1 2—2—4 Facit	$\frac{4}{20}$ 3—11—8 Facit
	d. $\frac{1}{2}$ s d
	$\frac{6}{20}$ 643 gall. at 6d
	1 16—1—6 Facit

The three last examples are brought into pounds at one operation, after which manner any sum in practice may be readily cast up.

Here you may see that 254 pounds of tobacco, at 1d a pound, divided by the $\frac{1}{2}$, gives 211 2d, and that divided by 20 (by cutting off the last figure, and taking $\frac{1}{2}$ of it) gives 10 11 2d, the price of 254 pounds of tobacco: and for 2d the pound take the $\frac{1}{2}$, because 2d is the $\frac{1}{2}$ part of a shilling, and for 3d a pound take $\frac{1}{3}$, and so for the others at 4d and 6d.

2. When the given price is such pence as are no even part of a shilling, take first the greatest even parts of a shilling, and then part of that part: add them together, and divide the product by 20, or cut off the last figure, and take $\frac{1}{2}$.

d 2121 ells at 5 d	748 lb. at 7 d
4 $\frac{1}{2}$ 707 s	6d is $\frac{1}{2}$ or 374
1 $\frac{1}{2}$ 176—9	of which 1d, or $\frac{1}{8}$ is 62—4
5 882—9	436
44—5—9 Facit	121—16—4

254 lb of tobacco at 9d and 10 $\frac{1}{2}$ a lb	d 254 at 10 $\frac{1}{2}$ d
d 6 $\frac{1}{2}$ 127	6 $\frac{1}{2}$ 127 shillings in 254 6 d
3 $\frac{1}{2}$ 63—6	4 $\frac{1}{2}$ 84—8 in 254 groats
9 $\frac{1}{2}$ 190—6	1 $\frac{1}{2}$ 10—7 in 254 halfpence
9—10—6 Facit	1 $\frac{1}{2}$ 5—3 $\frac{1}{2}$ in 254 farthings
	2217—6 $\frac{1}{2}$
	11—7—6 $\frac{1}{2}$ Facit

Demonstration. In 254 pounds of tobacco at 10 $\frac{1}{2}$ a pound, there must be 254 sixpences, which is 127 shillings, and 254 groats, which is 84 8d. and 25 halfpence, which is 10s 7d and 254 farthings, which is 53 3 $\frac{1}{2}$ d, all these added together, make 2217 6 $\frac{1}{2}$ d, which divided by 20, gives the answer 111 7s 6 $\frac{1}{2}$ d.

d 614 lb at 11d	d 563 lb at 11 $\frac{1}{2}$ d
6 $\frac{1}{2}$ 307	6 $\frac{1}{2}$ 281—6d
4 $\frac{1}{2}$ 204—8d	4 $\frac{1}{2}$ 187—8
1 $\frac{1}{2}$ 51—2	1 $\frac{1}{2}$ 70—4 $\frac{1}{2}$
11 5612—10	5319—6 $\frac{1}{2}$
28—2—10 fa	26—19—6 $\frac{1}{2}$ facit

3. If the given price be any number of pence above 12 and less than 20, take the aliquot parts in pence, (as in the last precedent) to which add the given quantity for the 1s, and proceed as before.

ARITHMETIC.

EXAMPLES.

$\frac{7}{8}$ 254 lb at 15 d	$\frac{1}{2}$ 54 lb at 17 d
d 63—6	84—8
317—6	21—2
15—17—6 facit	519—10
	7—19—10 facit

$\frac{1}{2}$ 264 yds at 18 d	$\frac{1}{2}$ 295 gall. at 19 d
$\frac{1}{2}$ 132	$\frac{1}{2}$ 147—6
3916	$\frac{1}{2}$ 24—7
19—16—0 facit	4617—1
	23—7—1 facit

$\frac{1}{2}$ 672 lb at $22\frac{1}{2}$ d	$\frac{1}{2}$ 456 ells at $25\frac{1}{2}$ d
$\frac{1}{2}$ 336	$\frac{1}{2}$ 228
$\frac{1}{2}$ 224	$\frac{1}{2}$ 152
$\frac{1}{2}$ 42	$\frac{1}{2}$ 38
2714	$\frac{1}{2}$ 9—6
63—14—0 facit	8813—6
	44—3—6 facit

In 672 lb at $22\frac{1}{2}$ d a lb I take $\frac{7}{8}$ for 8 d, the $\frac{1}{8}$ for 1 d, and the $\frac{1}{4}$ for the $\frac{1}{2}$. because $\frac{1}{2}$ is the $\frac{1}{2}$ of 6d, by which you will find that in 672 sixpences there is 336 shillings, and in 672 groats there is 224 shillings, and in 672 three farthings there is 42 shillings.

4. If the given price be such shillings as are an even part of a pound sterling, take such a part of the given quantity, and the quotient is pounds.

Ells s d	Yards
433 at 1—8	271 at 2s
$\frac{1}{12}$ 36—1—8 facit	$\frac{1}{10}$ 27—2—0 facit
674 at 2s 6d	495 at 3s 6d
$\frac{1}{4}$ 84—5—0 facit	$\frac{1}{2}$ 82—10—0 facit

ARITHMETIC.

179

Crowns	Dollars
457 at 3s	612 at 4s
$\frac{1}{4}$ 114 5-0 <i>facit</i>	$\frac{1}{5}$ 122 8-0 <i>facit</i>
295 at 6s 8d	372 at 10s
$\frac{1}{11}$ 98-6-8 <i>facit</i>	$\frac{1}{11}$ 186-0-0 <i>facit</i>

In this first example of 433 ells, at 1s 8d, I take the $\frac{1}{11}$ because 1s 8d is the $\frac{1}{11}$ of 1l, and say, 12 in 43 is 3 times, rest 7, which makes the 3 to be 73, then 12 in 73 is 6 times, rest 1, which is 1s 8d, which I put down as above

5. If the given price be such shillings and pence as are no even parts of a pound, multiply the given quantity by the number of shillings, and take the aliquot parts of pence, and proceed according to the second rule.

Ells	Ells
375 at 8s 6d	493 at 15s 10d
8	5
3000	2465
$\frac{1}{2}$ 187-6	493
3108-6	$\frac{1}{2}$ 246 6d
159-7-6 <i>facit</i>	$\frac{1}{2}$ 194 4d
	78015-10
	1390-5-10 <i>facit</i>
C s d	C s d
201 at 12-9	214 at 7-11
112	176 6 2 008
3540	1498
$\frac{1}{2}$ 547-6 000	107
$\frac{1}{2}$ 73-9	53-6
	35-8
37611-3	1604-2
188-1-3 <i>facit</i>	84-14-2 <i>facit</i>

6 If your given price be any number of pounds, shillings and pence; reduce first your pounds and shillings into shillings, and proceed according to the last rule.

Pieces	l	s	d	Tuns	l	s	d
754 at 4	3	7		176 at 3	7	10	
83	20			67	20		
2262	83			1232	67		
6032				1056			
$\frac{1}{2}$ 377				$\frac{1}{2}$ 11792			
$\frac{1}{2}$ 62	10			88			
63021	10			58	8		
3151	1	10	facit	119318	8		
				596	18	8	facit

7 If your given price be any number of pounds, and exceeding five pounds, then multiply your given quantity by the number of the pounds, and take your aliquot parts in shillings and pence, viz.

C	l	s	d	Hhds	l	s	d
74 at 11	12	6		394 at 16	16	3	
11				10			
814				2364			
37				394			
$10\frac{1}{2}$ 950				197 at 10s			
$2\frac{1}{2}$ 860	5	0	facit	9840 at 5			
				19	14	at 1	
				4	18	6 at 3d	
				6624	1	6	facit

8 If the given quantity be any number of C. qrs. or pounds; or tuns, C. qrs and pounds, &c. work as before where no part is, and take your aliquot parts in quarters and pounds, or in C. qrs and pounds and add them to your first work. An example or two will make this plain

ARITHMETIC.

181

C	s	d	C	s	d
75½	at	22 6	63½	at	12 10
22			12 mult.		
		11 3			
150			756s		
150			31 6d		
37 6			21		
11 3			9 7½C		
16918 9			3118 1 Sum.		
84 18 9 facit			40 18 1½		

In the example of 63 C ½ at 12s rod the C weight, I multiply the C by 12 s, and take the parts in pence for the odd pence; then for the ½ of C I first take the ½ of the price of a C, and that makes 6s 5d, the price of ½ a C, and then I take the half of that, which gives 3s 2½d the prime of a qr of a C. Add them together, it gives the price of ½ of a C which is 9s 7½d, and must be added to your first work. Two or three examples more will make it familiar and easy to any capacity.

84 C 3 qrs 11 lb at			21s rod
21			
84			
168			
42			
28			
18 6			
18512 6			
92 12 6			

lb ½ 10 11

7 ½ 5 5 ½

4 ½ 1 4 ½

0 9 ½

The price of 3 qrs 11 lb.

ARITHMETIC.

Tun C qr lb l s d
 12 14 3 14 at 15 17 06 a tun
 12

190	10	00
$\frac{1}{2}$	7	18
$\frac{1}{4}$	3	3
$\frac{1}{8}$	0	7
$\frac{1}{16}$	0	3
$\frac{1}{32}$	0	1
202	06	01 $\frac{1}{2}$

The Order of Deducting Tare and Tret.

C Rest is the weight of a commodity, with the hogf-head, chest, box, or whatever else contains it.

Tare is the allowance given for the weight of the cask, hoghead, &c.

Tret is an allowance of 4 pounds, in 104 pounds, for waste and dust on some sort of goods.

	C	qr	lb	lb	lb
<i>Exam.</i> 11	45	3	15	gross,	tare 14 per 112
14				how many lb neat?	
	5	2	26	tare.	

Answer 40 0 17

1. Here 14 pounds tare being $\frac{1}{8}$ of 112 pounds, take $\frac{1}{8}$ of the gross, the quotient gives the whole tare, which subtract from the gross, gives the neat weight.

The operation is performed thus: divide the gross by 8, say 8 in 45, 5 times, and 5C remains, which is 20qrs, and 3 is 23; then 8 in 23, 2 times, 7 qrs remain, which turned into pounds by 28, and added to the 15 pounds, make 211 pounds, then 8 in 211 is 26 times. So the tare is 5C 2 qrs 26 pounds.

	C	qr	lb.	s	d
Example.	40	0	17	Neat at	22 6
	22			lb	
	<u>22</u>			14 $\frac{1}{2}$	2-9- $\frac{1}{2}$
	80			2 $\frac{1}{2}$	0-4- $\frac{1}{2}$
	80			1 $\frac{1}{2}$	0-2- $\frac{1}{2}$
	20				
	0-3-4 $\frac{1}{2}$			facit	3-4- $\frac{1}{2}$
	<u>90</u>	0-3-4 $\frac{1}{2}$		price of	17 lb.
	<u>1</u>	45-3-4 $\frac{1}{2}$			

If the tare be 16 pounds in 112 pounds, take $\frac{1}{7}$ of the gross, and work as before.

If 18 pounds per 112 pounds, for tare, take the aliquot parts, viz.

For 16 lb. take the $\frac{1}{7}$ } Add the tare of 16, and the
For 2 take the $\frac{1}{56}$ } tare of 2 together, the total
subtract from the gross, and work as before.

lb lb lb
If 20 in 112 for tare { for 16 take $\frac{1}{7}$ lb
 for 4 take $\frac{1}{28}$ of 16

2. When an allowance is made for tret, then (after the tare is subtracted from the gross) the remainder is called tuttle, which divide by 26; (because 4 pounds is the 26th part of 104, the allowance always given for tret) the quotient gives the tret, which subtracted from the tuttle, gives the neat weight.

Ex. C qr lb lb lb lb lb
 45 - 3 - 15 gr. tare 16 in 112 tret 4 in 104
 264 6 - 2 - 06 tare

$\begin{array}{r} 39 - 1 - 09 \text{ futtle} \\ \hline 4 \\ \hline 157 \\ 28 \\ \hline 1265 \\ 314 \\ \hline 4405 \text{ pounds futtle} \\ 169 \text{ tret} \\ \hline 4236 \text{ neat pounds at 6d} \end{array}$	$\begin{array}{r} 4)104 \\ \hline 26 \\ \hline 26)4405 \\ \hline 180 \\ \hline 169 \quad 245 \\ \hline 11 \end{array}$
---	--

64 21 118s

4. 105 - 18 - 0 facit

3. If the allowance for tare be 8 pounds, 10 pounds, 12 pounds, in 112, or any other lesser number, whether an aliquot part of 112 nor not, in such cases, divide the gross into two parts by 2, which will make it half hundreds, then say, 8 is $\frac{1}{7}$ of $\frac{1}{2}$ C. or of 12 pounds in 112 pounds.

Rule. From $\frac{1}{2}$ of the gross, take $\frac{1}{7}$ of that 8th for tare at 12 per cent. When you have found tare subtract it always out of the whole gross.

I might enumerate examples, but these being sufficient to instruct any ordinary capacity in tare and tret.

I shall proceed to shew some other abbreviated ways of casting up goods and merchandize.

For retailers of small parcels, as mercers, linnen and woolen drapers, haberdashers of hats, &c.

THE most abbreviated and ready way is, to multiply the price by the quantity.

Example. Sold 7 yards of cloth, at 14s 6d. a yard.

$$\begin{array}{r} 7 \\ \hline \text{Answer L. } 5 - 1 - 6 \end{array}$$

Say 7 times 6 is 42, which is 3s 6d, set down 6 pence and carry 3 shillings to the place of shillings, and say, 7 times 4 is 28, and 3 I carry is 31, set down 1s, and carry 3 angels to the place of tens of shillings, and say, 7 times 1 is 7, and 3 I carry is 10 angels, which is 5l. fix the 5l in the place of pounds: so the price of 7 yards is 5l 1s 6d.

Example. Sold 11 yards and $\frac{1}{2}$ at 13s 3d.

$$\begin{array}{r} 11 \\ \hline \text{L. } 7 - 5 - 9 \\ \text{the } \frac{1}{2} \text{ yard } 6 - 7\frac{1}{2} \\ \hline \text{Ans. L. } 7 - 12 - 4\frac{1}{2} \end{array}$$

For half a yard; take half of 13s 3d and add to the product of 11 yards.

Object: There are many numbers under a 100 that are not included in the multiplication table, or being multiplied together, will not produce the given quantity; and so consequently cannot be done by this new way of practice.

Ans. It is very true, there are several numbers under 100, that no two numbers multiplied together can produce them, such as 13, 17, 19, 25, 29, 31, 33, 37, and many more.

Rule. In such cases multiply by two such numbers, as being multiplied together will come nearest to such odd numbers; then multiply the price by that part which wants to make up the given quantity. An example of which follows.

Example. 29 ells at 7 - 9

7	Here I multiply by 7
2 - 14 - 3	and 4, because 7 times 4
4	is 28, and for the odd ell
10 - 17 - 0	to make it 29, I add the
7 - 9	price of the ell to the
Anf. 11 - 04 - 9	product.

Anf. 11 - 04 - 9

FRACTIONS

Are of two kinds { VULGAR,
and
DECIMAL.

A Vulgar fraction is caused by division of whole numbers the remainder of which being less than the divisor, called the numerator, is always the dividend, and the denominator is the divisor.

3 Numerator.

4 Denominator.

A decimal fraction is such a one, whose denominator is understood, and therefore need not be expressed: and is an unit with as many cyphers following it, as there be figures and cyphers in the numerator.

Decimal fractions, whether they stand alone, or be joined with integers, have always a comma or point before them to distinguish them from integers, as 5,560042

In decimals the value of every figure or cypher decreases by a tenfold proportion from the units place towards the right hand, as the whole numbers do increase the value towards the left hand, by the like proportion, as you may see in the following table.

ARITHMETIC.

C. Thous.	X. Thous.	Thous.	C.	X.	Units.	Tens.	Hund.	Thous.	X.	C.	Thous.
6	5	4	3	2	1	2	3	4	5	6	
Whole numbers						Decimals					

Cyphers before integers, and at the end, or right hand of decimals are of no value; but after integers, and before decimals they have their value; for in integers they increase, and in decimals they diminish the value of the other figures joined with them.

The integers 005 is but 5, and 004 is but 4, and 06 is but 6.

But in decimals, .005 is $\frac{5}{1000}$, and .004 is $\frac{4}{1000}$, and .06 is $\frac{6}{100}$.

And again, in integers 500 is five hundred, and 400 is four hundred.

In decimals 500 is but 5, and 400 is but 4, &c.

Next to abbreviation and valuation of vulgar fractions, there is little required, but to know how to bring a fraction of a lesser name into a fraction of a greater name and to reduce fractions of diverse unequal denominators to one common denominator, which being well understood, you may with as much ease add, subtract, multiply and divide a fraction as you can a whole number.

In decimals a fraction is seldom abbreviated; therefore,

1 To abbreviate any vulgar fractions, find such a number for dividing both the numerator and denominator thereof so, that no remainder be on either of the divisions

Example. Abbreviate $\frac{96}{120}$ into $\frac{4}{5}$ its lowest term.

Say, 12 in 96, 8 times, and 12 is 120, 10, then the fractions is $\frac{8}{10}$; then say, 2 in 8, 4 times, and 2 in 10, 5 times, then the fraction is $\frac{4}{5}$, so that 4 is to 5, as 96 to 120.

2. To know what part of a pound sterling any number of shillings and pence is, bring the shillings and pence

into pence for a numerator, and place 240 under it (the pence of one pound) for denominator.

Example. What part of a pound is 11s 3d?

Facit $\frac{11}{16}$.

3. To reduce vulgar fractions into decimals, Add cyphers at pleasure to the numerator, and divide by the denominator. Example, viz.

Reduce 11s 3d into a decimal fraction.

$$\begin{array}{r} 12 \quad 240 \quad 1350000 \\ \hline 135 \quad 150 \quad 60 \\ \hline \text{Numer. facit } 5625 \quad 120 \end{array}$$

Or, $\frac{5625}{10000}$, or .5625.

Example. Reduce $\frac{4}{5}$ into a decimal fraction.

$$\begin{array}{r} 5 \overline{) 4000} \\ \hline \end{array}$$

800.

Or rather 8

facit 800.

4. To value a vulgar fraction, Multiply the integer into the numerator, and divide by the denominator.

What is the $\frac{4}{5}$ of a pound Sterling?

$$\begin{array}{r} 20 \quad 5 \quad 8 \\ \hline 5 \overline{) 100} \quad (12 \overline{) 6} \\ \hline 8 \quad 4 \quad \text{facit} \end{array}$$

An ell worth $7\frac{5}{9}$ what is $\frac{2}{3}$ worth?

$$\begin{array}{r} 5 \overline{) 15} \quad 6 \\ \hline \text{facit } 3 \quad 1 \end{array}$$

5. To value a mixt number, Multiply the mixt number by the numerator, and divide by the denominator. Example.

A ship worth 794—11—9, what is $\frac{1}{4}$ worth?

$$8)3972-18-9$$

$$\text{facit } 496-12-4\frac{1}{2}$$

6. To value a decimal fraction, expressing coin; every prime or unit in the first place is 2s value; every 5 in the second place 1s, and the rest farthings; but if they exceed $\frac{1}{1000}$, there must be one farthing abated.

Reduce $\frac{1}{4}$ of a pound into a decimal fraction.

$$9),700000$$

$$,77777$$

Here 7 primes is 14s, and 5 taken out of the second place is 1s, which makes 15s, then 2 remains, which is 27 to the thirds, or place of farthings, out of which abate 1 for $\frac{1}{1000}$, it makes 15s 6 $\frac{1}{2}$ d, which is the $\frac{1}{4}$ of a pound sterling.

7. To reduce vulgar fractions to a common denominator, Multiply the numerator of each fraction into every denominator, except its own, which makes the product of a new numerator; then multiply all the denominators together, and that product is one common denominator to all the new numerators. Example.

Reduce $\frac{1}{4}$ and $\frac{1}{3}$ to a common denominator.

Facit $\frac{3}{12}$ and $\frac{4}{12}$.

Here 12 the common denominator to both the new numerators, viz. 8 and 9, and you find that 8 is to 12 as 2 to 3, and 9 is to 12, as 3 to 4.

So that $\frac{1}{3}$ is to $\frac{2}{6}$, and $\frac{1}{4}$ to $\frac{3}{12}$.

Reduce $\frac{1}{2}$, and $\frac{1}{3}$, and $\frac{1}{4}$ of a pound to a common denominator.

To prove your work, Divide your new numerator by the numerator of that fraction, and divide the common denominator of the fraction by the denominator, if both quotients are equal, your work is true

$$\begin{array}{r} 4 \overline{) 192} \\ 6 \overline{) 18} \quad 40 \quad 42 \\ \hline 8 \overline{) 4} \quad 4 \\ \hline 24 \overline{) 168} \\ 8 \overline{) 144} \quad 160 \quad 168 \\ \hline 192 \quad 192 \quad 192 \quad 192 \end{array}$$

Exam. $\frac{1}{12}$, is $\frac{48}{192}$, here divided by 3, make 48, and 192 divided by 4, gives 48, which was to be proved. Or, you may prove your work by abbreviation of fractions, but it is attended with much difficulty, where 4 or more fractions are reduced to a common denominator.

Now this reduction of fractions is of little use otherwise than to prepare a fraction to be either added, subtracted, multiplied, or divided.

As if the $\frac{1}{2}$ and $\frac{1}{3}$ and $\frac{1}{4}$ were to be added together, reduce them first into a common denominator, as in the last rule, it makes $\frac{96}{192}$ and $\frac{64}{192}$ and $\frac{48}{192}$. Add all the new numerators together, make 208, which divided by 192, the common denominator, makes $2\frac{16}{192}$ as in the following example.

Addition of } 144
Vulgar Frac. } 160
tions. } 168

$$\begin{array}{r} 192 \overline{) 472} \\ 2 \overline{) 88} \end{array}$$

Facit $2\frac{16}{192}$ or $9-2$

And if the $\frac{1}{2}$ and $\frac{1}{3}$ and $\frac{1}{4}$ were to be added together in decimals, reduce them first into decimal fractions, according to the third rule, and the operation stands, viz.

Addition of } $\frac{1}{2}, 75$ Say, 4 in 30 is 7 times, and 4
Decimals. } $\frac{1}{3}, 333$ in 20 is 5 times, and 10 for the
} $\frac{1}{4}, 875$ rest.

Facit $2,4583$, or, $2\frac{9}{20}$

By this addition you see how much less work is made by decimals than in vulgar fractions, and how easy their value is found out according to the sixth rule.

8. To reduce the compound fractions, or fractions of a lesser name into the fractions of a greater, Multiply the numerators together for a new numerator, and the denominators multiply together for a new denominator.

Reduce $\frac{1}{4}$ of a penny into the proper fraction of a pound sterling.

Say, $\frac{1}{4}$ of $\frac{1}{12}$ of $\frac{1}{20}$, or $\frac{1}{4}$ of $\frac{1}{240}$, *facit* $\frac{1}{960}$.

9. To reduce a mixt number of a lesser name into the fractions of a greater, Reduce the mixt number into an improper fraction, and work as before.

Reduce $3\frac{1}{2}$ into the proper fraction of a pound sterling.

$\frac{1}{2}$ of $\frac{1}{12}$ of $\frac{1}{20}$, or $\frac{1}{2}$ of $\frac{1}{240}$, *facit* $\frac{1}{480}$.

By the same rule you may reduce any sort of weight or measure.

For compound fractions, their use is chiefly to bring fractions of divers denominations to one and the same denomination.

As if the $\frac{1}{4}$ of a penny, $\frac{2}{3}$ of a shilling, and $\frac{7}{8}$ of a pound were added together.

The $\frac{1}{4}$ of a penny must be reduced into the fraction of a pound, and the $\frac{2}{3}$ of a shilling, must be reduced into the fraction of a pound thus :

Then the fractions to be added, are $\frac{1}{960}$, and $\frac{2}{3}$ and $\frac{7}{8}$, which reduce to a common denominator, and add them together, either by decimals or vulgar fractions.

$\frac{1}{4}$ of $\frac{1}{240}$ *facit* $\frac{1}{960}$
 $\frac{2}{3}$ of $\frac{1}{20}$ *facit* $\frac{2}{60}$

Addition of Fractions.

1. IF the fractions to be added have one common denominator, add all the numerators together, and divide the product by the common denominator.

Example. Add $\left\{ \begin{array}{l} \frac{1}{12} \\ \frac{1}{12} \\ \frac{1}{12} \end{array} \right\}$ of a pound together.

$$\begin{array}{r} 12 \overline{) 20} \\ \text{Facit } 1\frac{8}{12} \end{array}$$

2. If the fractions to be added be of different denominators, reduce them to a common denominator, and proceed as before.

Example. Add $\frac{1}{4}$ and $\frac{1}{3}$ and $\frac{1}{6}$ together.

$$\begin{array}{r} 8 \quad 8 \quad 8 \quad 84 \\ 4 \quad 28 \quad 24 \quad 8 \quad 72 \\ \hline 3 \quad 3 \quad 3 \quad 64 \\ 32 \quad 72 \quad 96 \quad 220 \\ 3 \quad 84 \quad 72 \quad 96 \\ \hline 96 \quad 96 \quad 96 \quad \text{Facit } 2\frac{2}{3} \end{array}$$

To add $\frac{1}{4}$ and $\frac{1}{3}$ and $\frac{1}{6}$ of a pound in decimals, reduce them into decimal fractions, and add them up as in whole numbers, keeping the place of units just under each other.

$$\begin{array}{r} \text{Add } \left\{ \begin{array}{l} \frac{1}{4}, 875 \\ \frac{1}{3}, 75 \\ \frac{1}{6}, 666 \end{array} \right\} \\ \hline 2,2916 \end{array}$$

Facit 2—5—10

$$\begin{array}{r} 8) 71000 \\ \hline 875 \\ 4) 3000 \end{array}$$

$$\begin{array}{r} 75 \\ 3) 20000 \\ \hline 6666 \end{array}$$

Subtraction of Fractions.

1. **T**O subtract fractions of different denominators, reduce them to a common denominator, and subtract the lesser fraction from the greater.

Example. From $\frac{1}{4}$, take $\frac{3}{8}$. from $\frac{8}{8}$ take $\frac{3}{8}$
 $\frac{8}{8}$ $\frac{8}{8}$ $\frac{8}{8}$
 9 8 —
 Facit $\frac{5}{8}$

2. If you have a mixt number (or integer and fraction) and the fraction to be subtracted be greater than the fraction from which you are to subtract,

Borrow an integer from the mixt number, and work as in the subtraction of whole numbers.

Example. From $11\frac{3}{4}$ — $\frac{9}{8}$ Here I cannot take $\frac{9}{8}$ out of $\frac{3}{4}$, therefore, I borrow an integer, viz. 1, and say, 9 out of 12, rests 3, to which add $\frac{3}{4}$, rests $\frac{11}{8}$, and carry 1 to 2, is 3. out of 11, rests 8; and facit $8\frac{11}{8}$.

From $25\frac{3}{4}$ from 42
 Take $19\frac{7}{8}$ take $16\frac{1}{4}$
 Facit $15\frac{5}{8}$ facit $25\frac{5}{8}$

Subtraction of decimals is the same as in whole numbers, keeping the place of units just under each other of the integers, and primes under primes of the decimals, &c.

l.	l.	s.	d.
From $\frac{3}{4}$, 875	the $\frac{7}{8}$ is	17	6
Take $\frac{1}{4}$, 75	$\frac{1}{8}$ is	15	0
s. d.			
Rest, 125 or 2—6		Rest 2—6	

Equal to the Decimal, .125.

Multiplication of Fractions.

1. **T**O multiply proper fractions, multiply the numerators together for a new numerator, and the denominators multiply together for a denominator.

Example. Multiply $\frac{7}{8}$ by $\frac{1}{4}$, facit $\frac{7}{32}$

2. If a mixt number and a fraction are to be multiplied together, reduce the mixt number into an improper fraction, and work as in the last.

Example. Multiply $11\frac{2}{3}$ by $\frac{1}{2}$.

$11\frac{2}{3}$ by $\frac{1}{2}$ *facit* $5\frac{1}{3}$.

Example. Multiply $12\frac{1}{2}$ by $2\frac{1}{2}$.

$12\frac{1}{2}$ by $2\frac{1}{2}$ *facit* $32\frac{1}{4}$ or $32-1-8$

3. To multiply a mixt number by an integer, make the integer an improper fraction, by placing [1] under it; and reduce your mixt number into an improper fraction, and work as in the first rule.

Example. Multiply $7\frac{1}{2}$ by 4.

$7\frac{1}{2}$ by 4, *facit* $30\frac{1}{2}$.

4. Multiplication of decimals is the same as in whole numbers, saving as many decimal parts as are in the multiplicand and multiplier, so many must be cut off from the product, which if it have not so many places, the defect must be supplied with cyphers towards the left-hand.

Multiply, 1005
by, 631

1005

3015

Facit, 633155

11,83

2,87

8281

9464

2366

33,9531

Division of Fractions.

1. **T**O divide single fractions: there is no need to reduce the fractions to a common denominator,

but multiply the numerator of a divisor, by the denominator of the dividend. And contrary for the terms of the quotient thus :

Example. Divide $\frac{1}{2}$ by $\frac{1}{4}$

$$\frac{1}{2} \div \frac{1}{4} = 1\frac{1}{2} \text{ or } 1\frac{2}{2}$$

2. If it happens that the fraction of the divisor be greater than the fraction of the dividend, the facit of such division is a fraction.

Example. Divide $\frac{1}{2}$ by $\frac{3}{4}$

$$\frac{1}{2} \div \frac{3}{4} = \frac{2}{3} \text{ Facit } \frac{2}{3}$$

3. To divide an integer by a fraction, multiply the integer into the denominator, and divide by the numerator.

Example. Divide 8 by $\frac{1}{2}$

$$8 \div \frac{1}{2} = 16 \text{ Facit } 16$$

4. To divide a fraction by an integer, place the numbers as follows, and work as by the first rule.

Example. Divide $\frac{1}{2}$ by 3

$$\frac{1}{2} \div 3 = \frac{1}{6} \text{ Facit } \frac{1}{6}$$

5. To divide a mixt number by an integer, reduce the mixt number into an improper fraction, whose denominator multiply by the integer for your divisor.

Divide $3\frac{1}{2}$ by 2

$$3\frac{1}{2} \div 2 = 1\frac{3}{4} \text{ Facit } 1\frac{3}{4}$$

6. To divide a mixt number by a fraction, reduce the mixt number into an improper fraction, and work as before.

Example. Divide $3\frac{1}{2}$ by $3\frac{1}{4}$

$$4) 1\frac{1}{2} \text{ (}\frac{1}{2}\text{ facit, or } 6\frac{2}{3}\text{)}$$

7. To divide an integer by a mixt number, reduce the mixt number and integer into improper fractions, and proceed as before.

Example. Divide 5 by $3\frac{1}{4}$

$$\frac{5}{1} \div \frac{13}{4} = \frac{5}{1} \times \frac{4}{13} = \frac{20}{13}$$

Or, $1\frac{7}{13}$ facit

8. To divide a mixt number by a mixt number, reduce them into improper fractions and divide as before.

Example. Divide $3\frac{1}{2}$ by $2\frac{1}{4}$

$$\text{Or, } \frac{7}{2} \div \frac{5}{4} = \frac{7}{2} \times \frac{4}{5} = \frac{28}{5}$$

Facit $5\frac{3}{5}$ or $11\frac{3}{5}$

Division of decimals is the same as in whole numbers, all the work be done, and then use the converse of the rule for multiplication, viz. so many decimals as are in the dividend, so many there must be in the divisor and quotient; and if there be not so many, the quotient must be supplied with cyphers towards the left hand.

Example. Divide 33,9521 by 2,87

$$2,87 \overline{) 33,9521}$$

$$\begin{array}{r} 11,83 \\ 2,87 \overline{) 33,9521} \\ \underline{31,54} \\ 2,4121 \\ \underline{2,87} \\ 5421 \end{array}$$

See the converse in multiplication of decimals.

The Rule of Three in Fractions.

RULE: You must multiply your second and third numbers together, and divide by your first, observing the same method as in whole numbers. That the first and third numbers be of one name or denomination.

Example. If $3\frac{1}{2}$ lb buy $\frac{1}{2}$ of tobacco, What shall $96\frac{1}{2}$ buy?

$$\begin{array}{r} \frac{1}{2} \text{ of } \frac{1}{2} \\ \hline 1 \text{ lb } 1 \\ 110 - 2 - 95\frac{1}{2} \\ \hline 111 \text{ by } \frac{1}{2} \\ \hline 111 \end{array}$$

Divide 111 by 110

$$\begin{array}{r} 7 \quad 766 \\ \hline \end{array}$$

$$\begin{array}{r} 84 \quad 2880 \\ \hline \end{array}$$

$$\begin{array}{r} 2880 \\ \hline \end{array}$$

$$\begin{array}{r} 3360 \\ \hline \end{array}$$

$$\begin{array}{r} 84) 367680 \\ \hline \end{array}$$

$$\begin{array}{r} 316 \\ \hline \end{array}$$

Facit 4377 lb of tobacco

$$\begin{array}{r} 648 \\ 600 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \hline \end{array}$$



The mensuration of plain superficies (or flat measure) such as board, glass, wainscot, painting, and the like.

Note 1. That in superficial measure, 12 times 12 inches, being 144 inches, are the number of inches contained in a square foot of superficial measure.

MENSURATION.

2. That to square any number, is to multiply it by itself, as if you would know how many square feet is contained in a yard square, multiply 3, the feet in one yard by 3, the product is 9, and 10 many feet make a yard square.

Example. How many square inches are there in a yard square.

1 yard is 3 feet

$$\begin{array}{r} 12 \\ \times 12 \\ \hline 36 \\ 108 \\ \hline 144 \end{array}$$

Facit 1296 inch

The general rule is to multiply the length by the breadth, the product is the content.

Example 1. A board 12 foot long, and 14 inches broad, how many square feet?

$$\begin{array}{r} 12 \\ \times 14 \\ \hline 168 \\ 144 \\ \hline 168 \end{array}$$

576 Facit 14 square feet.

Example 2. A piece of wainscot 24 foot, 9 inches long and 11 feet deep, how many square yards?

MENSURATION

Feet. Inch.		Yard. Feet. Inch.
24—9		
11	Mul.	Facit 30—2—3
		Or, 30—2— $\frac{3}{4}$
9) 272—3		

Example 3. A painter hath done a room, 90 foot about, and 11 $\frac{1}{2}$ foot high, I demand the square yards therein?

Foot
11,5 High
90 About

9) 1035 (115 Yards for answer.

Note, This way 'tis done much truer and with fewer figures, and no charge to the memory.

Example. A glazier hath done a pane of glass of 5 foot 73, high, and 5 foot 54, broad, at 6 d the foot square.

Note, The glazier's foot divided	5, 73
into 10 parts, and every part into	5, 54
10 parts more.	
	2292
	2865
	2865
	Facit, feet, 31,7442

A general rule to measure round or square pillars.

Multiply the length by the circumference of round pillars.

And for square pillars, add the sides or breadth together, and multiply the total by the length.

Example 5. A painter hath done a pillar of 6 feet 3 inches circumference, and 14 feet 9 inches long, I demand the square yards of painting?

MENSURATION

The common and best way to do this, is by cross multiplication thus,

Feet. Inch

$$\begin{array}{r} 14-9 \\ 6-3 \\ \hline 3-8-13 \\ 88-64 \\ \hline \end{array}$$

Facit, feet 92-2-3 answer.

Or, yards 10-2-2-3

Multiplying 9 by 3, gives 2 feet 3, put down the 3; and carry 2; then 3-times 14 is 42, and 2 is 44, which is 3 foot 8, which put down as you see.

Then 6 times 9 is 54, which is 4 feet 6, put 6 under the 8 (as being 1/2ths of a foot as the 8 is) then 6 times 14 is 84, and 4 is 88. So the sum of the 2 lines is 92 feet 2-3. Or the feet divided by 9, is 10 yards 2 foot, 2 primes (or 12ths of a foot) and 3 seconds or 12ths of a 12th.

The same is done decimally thus:

14, 75 Feet

6, 35

7375

2950

8850

9)92,1875

Or yards 10, 2, 1875 Feet:

For regular polygons, add all the sides together, and multiply the total by half the nearest distance from the center to one of the sides.

For cones, multiply half the length by the circumference.

For pyramids, add all the breadth at the base together, and multiply half the length by the total.

For globes, multiply the area of the greatest circle by 4, it gives the content.

Mensuration of Solids.

Solids; such as stone, timber, &c. are measured by the cubic or solid foot; now a cube is a figure like a dye of 6 equal sides, and a cubic foot contains 12 inches square on every side.

THE rule is, multiply the length by the breadth, and that product multiply by the depth, which divide by 1728, the cubic inches in a foot solid.

Example.

A piece of timber 16 foot long, 14 inches broad, and 9 inches deep, how many solid feet doth it contain?

$$\begin{array}{r}
 12 \quad 16 \\
 12 \quad 12 \\
 \hline
 144 \quad 192 \\
 12 \quad 14 \\
 \hline
 1728 \quad 768 \\
 \quad 192 \\
 \hline
 \quad 2688 \\
 \quad 9 \\
 \hline
 1728 \overline{) 24192} \text{ Facit } 14 \text{ Feet} \\
 \underline{6912} \\
 14 \quad 000
 \end{array}$$

Example.

A stone 7 feet 3 inches long, 4 feet 5 inches broad, and 2 feet 3 inches deep, how many solid feet?

MENSURATION

12 3 12 5 12 3

87 length
53 breadth

261
435
4611

1628
24497
3537

27 deep Facit 72 Solid feet
81
32277
9222
1678
Or 6 9

Facit 124497 cubic inches

But the way most used, and which is shorter and most like an arith, is this.

Inch Feet
4-5 broad
2-3 deep
1-1-2
8-10-0
9-11-3
887-3-long
2-5-9-9
69-5-9-11
Feet 72-0-6-9

Only carrying the 12's both in your multiplication and addition.

To find how many inches in length make a solid foot of timber, multiply the number of inches square in it by 12, and make 1728 the cubical inches of a foot your dividend.

MENSURATION.

203

Example.

A piece of timber 18 inches square, what length will it require to make a foot solid?

$$\begin{array}{r} 18 \\ 18 \\ \hline \end{array}$$

Facit 144

Example.

How many inches in length will make a foot, at 12 inches square?

Facit 12 inches

Example.

How many inches in length will make a foot, at 12 inches square?

Facit 12 inches

Example.

Facit 12 inches

Example.

Facit 12 inches

Facit 12 inch.

PLANK MEASURE.

A table shewing how many feet make a load of plank of any thickness.

Inch thick	Foot to the load	Inch thick	Foot to the load
1	600	5	120
1 1/2	400	5 1/2	109,091
2	300	6	100
2 1/2	240	6 1/2	92,076
3	200	7	85,714
3 1/2	171,428	7 1/2	80
4	150	8	75
4 1/2	133,333	8 1/2	70,588

The way to make this table, or to know how many feet of plank make a load of any thickness.

Rule. Say, if 12 inch thick, require 50 feet to make a load; what will 4 inch thick require? This by the reverse rule of three gives 150, as you see by the operation.

$$\begin{array}{r} 12. \quad 50 \quad 4. \\ \hline 12 \end{array}$$

4) 600 (150 feet for answer.

So that if you divide 600 by any thickness of plank, the quotient sheweth how many feet thereof make a load.

2 Exam. If it were required to know how many load are in 5762 feet of plank 5 inches thick.

By the table 120 feet make a load; therefore divide 5762 by 120, and the quotient is loads.

$$120) 5762 \quad 48 \frac{1}{10} \text{ or } 48 \frac{1}{10} \text{ loads.}$$

Or multiply the feet given by 144, and that product by the thickness of the plank, then divide by 1728 the inches in a solid foot, and that quote is feet, which divide by 50 the feet in a load, and you have the loads without the table.

$$\begin{array}{r} 5762 \\ 144 \end{array}$$

$$829728$$

$$5$$

$$1728) 4148640 \quad (2400 \quad (48 \frac{1}{10} \text{ load.}$$

$$6926$$

$$50)$$

$$1440$$

Note, The remainder 1440 is equal to 56 feet, and $\frac{2}{3}$ of $\frac{1}{10}$ is equal $\frac{1}{50}$ of the load as above.

Exam. 3. In 1234 feet of 4 inches plank, how many load and solid feet?

$$150) 1234 \quad (8 \text{ load.}$$

$$3)$$

$$34$$

$$(41 \text{ solid feet.}$$

For the solid feet, divide the remainder by the number of 50's contained in the divisor, or by the times that the thickness of the plank is found in 12 as above.

Also, if the last example were done by the second rule, under the second example, 1234 multiplied by

MENSURATION. - 205

144, gives 177696, and that by 4 inches thick, 710784, which divided by 1728, the quote is 411 feet, or 8 load (divided by 90) and 11 foot, as in the last rule and example.

3dly, To know how many feet of plank of any thickness make a tun. Say by the inverse rule of three, as 12 to 40, so the thickness to the answer.

$$\begin{array}{r} 12. \quad 40. \quad 4. \\ \quad \quad 12 \end{array}$$

4) 480 (120 feet in the tun.

And so may you make a table of the feet of any thickness in a tun (as is before shewed for the load) by only dividing the 480, by the thickness of the plank.

So in thickness Feet make a tun

of 1 inch	480
2 — —	240
3 — —	160
4 — —	120
5 — —	96
6 — —	80, &c.





A Short and Easy

METHOD

OF

BOOK-KEEPING.

INSTRUCTIONS.

Quest. **W**Hat is the first thing I must do, who design to keep my books of accounts after this method.

Ans. You must make an inventory; an example of which is at the end of these instructions.

Q How must I post the first part of this inventory?

A You must post it on your ledger, viz. merchandize, to the debit of that account.

Cash, to the debit of your cash-book.

George Mason's debt, to the debit of his account.

Germain Bell's debt, to his debit also.

And for the whole sum (viz. 730*l*) you must give counterpart in credit of stock.

Q How must I post the other part of this inventory.

A To the credit of *Thos. Richards*, the sum you owe him.

To the credit of *John Fair*, the sum you owe him.

And for the whole sum, (viz. 100*l*) you must debit stock. See the several accounts, fol. 1, 2.

Q I see by the first page of the day-book, that it contains entries of goods sold to sundry persons: How must these be posted.

A To debit of *Richard Hughs*, what sold him.

To debit of *Anthony Coule*, the like.

To debit of *James Gray* and company, the like.

To debit of *Richard Hunt*, the like. See their accounts, Fol. 3. ledger.

And counterpart must be given for the whole sum of this page (*viz.* 16*l* 10*s* 10*d*) on credit of merchandize in the said ledger. See account of merchandize, Fol. 1. ledger.

And the like must be done for the pages 2, 3, 4, 5 and 6 of the said day-book.

Note. That the ready money taken for goods sold is posted each month to the debit of your cash-book.

Q How must I enter the monies I receive (of debtors on my ledger?)

A On your debit side of your cash-book. See that book.

Q How must I post those sums received into my ledger?

A To the credits of the persons, of whom received. See the accounts of

<i>Richard Hughes</i> —	Fol. 3
<i>Anthony Gault</i> —	Fol. 3
<i>John Gray and company</i> —	Fol. 3
<i>Thomas Wilson</i> —	Fol. 3
<i>Henry Trap</i> —	Fol. 4

Q How must I post (into my ledger) the total receipts of the month of *August* (*viz.* 57*l* 3*s* and 10*d*.)

A You must post that total to the debit of your cash, in your ledger, writing,

To *sundries*. Received per cash-book. See the account of cash, in the ledger, Fol. 1.

Do the like for *September* and *October*'s receipts.

Q How must I enter the monies I pay to those I owe to, and who have credit in my ledger.

A On the credit side of your cash-book. See the cash-book.

Q How must I post those sums paid?

A To the debits of the persons to whom paid. See the accounts of *Thomas Richards*, Fol. 2. and *John Fair*, Fol. 3. in your ledger.

Q How must I post (into my ledger) the total payments of the month of *August* (*viz.* 30*l*.)

A. You must post it to the credit of your cash, in your ledger, writing,

By *sundries* paid *per* cash-book. See the account of cash in your ledger, Fol. 1.

Q I understand by these directions, how to state and post my books, How must I proceed in balancing my ledger?

A Value your merchandize remaining unsold, and enter the sum of their value on credit of the account of merchandize, in your ledger. See the account of merchandize, Fol. 1.

And give the counterpart in debit of the account of balance in the said ledger. See the debit of balance, Fol. 4.

Which done, subtract the debit side of the said account of merchandize from its credit, and place the remainder (*viz.* 97/ 10) on the debit side of it. See the account, Fol. 1.

And give counterpart on credit of profit and loss in the said ledger. See account of profit and loss, Fol. 4.

Then add up debtor and creditor of the account of cash in the said ledger, and subtract the credit from the debit, and place the cash remaining (*viz.* 297/ 7s 1d) on credit of the said account of cash. See the account, Fol. 1. and give counterpart in debit of the account of balance. See said account of balance, Fol. 4.

Q How must I do with the account of expences?

A. Write on its credit side (the 32/) by profit and loss, and give counterpart in debit of the account of profit and loss. See both the accounts, Fol. 2, 4.

Q How must I do with the account of *George Mason*, who, I find by his account, owes me 10/

A You must write on credit of his account by balance now owing to me 10/

And give counterpart, on debit of balance. See both the accounts, Fol. 2, 4.

Do in the same manner by the accounts of

Germain Bell — Fol. 2

Richard Hughs — Fol. 3

John Gray and company Fol. 3

And *Thomas Wilson* — Fol. 3

See their particular accompts in your ledger.

Q How must I do with the accompt of *Thomas Richards*, to whom I find I owe 20/

A You must write on the debit of his accompt. To balance now due to him 20/

And give counterpart on credit of balance. See both the accompts, Fol. 2, 4.

Do the like with the accompt of *John Fair*. See his accompt, Fol. 2.

Q How must I do to balance or close the accompts of stock, profit and loss.

A Subtract the debit, or profit and loss from its credit, and set the remainder (*viz* 65/ 10s) being your clear gains during the time of this trade, on the debit of profit and loss. See the accompt, Fol. 4.

And give counterpart in credit of stock. See accompts of stock, Fol. 4.

Q How must I do to balance the accompts of stock?

A Subtract its debit from its credit, and set the remainder (*viz* 685/ 10s being your present net stock), on the debit of stock. See the accompt, Fol. 1.

And give counterpart in credit of balance. See accompt of balance, Fol. 4.

This done, your ledger is balanced; and the accompt of balance, Fol. 4.

This done your ledger is balanced, and the accompt of balance (if you have proceeded right) will be equal on both sides.

The INVENTORY.

London, August 1. 1757.

I Have merchandize of sundry		
sorts to the value of	—	L. 520-00-00
In cash or ready money	—	180-00-00
Owing to me, by	—	
<i>Richard Masfon</i>	—	20-00-00
<i>Germain Beil</i>	—	10-00-00
Owing by me, to	—	
<i>Thomas Richards</i>	L. 60-00-00	
<i>John Fair</i>	— 50-00-00	
		L. 110-00-00
		My net stock 620-00-00
		S 3

Cash-Book. I.

Receipts—Debtor.

l. s. d.

August, 1757.

To stock by inventory	—	180	00	00
Richard Hughes, of him	—	2	00	00
Anthony Coule, ditto	—	3	60	6
John Gray and company, ditto	—	1	00	6
Thomas Wilson, ditto	—	4	13	00
Henry Trap, ditto	—	0	15	00
pt. 31 Merchandize since 1st of August	—	42	18	10
L. 57—03—10 Received	—	227	03	10

September, 1757.

Last balance.	—	227	03	10
Richard Hughes, of him	—	3	8	15
Anthony Coule, ditto	—	2	3	00
George Mason, ditto	—	2	10	00
Germain Bell, ditto	—	4	5	00
Henry Trap, ditto	—	3	2	06
John Gray and company, ditto	—	2	00	03
Merchandize since 1st of September	—	38	06	06
L. 69—18—08 Received	—	276	12	06

BOOK-KEEPING.

211

I.

Payments — Creditor.

l. s. d.

August, 1757.

23 By Thomas Richards, to him. — 2 20 00 00

31 John Fair, ditto — 2 10 00 00

Paid this month 30 00 00

Resting per balance 207 03 00

237 03 10

September 1757.

22 John Fair, to him — 2 5 00 00

28 Thomas Richards, ditto — 2 10 00 00

Paid this month 15 00 00

Resting per balance 261 12 06

276 12 06

2.

.1

Receipts — Debtor.

l. s. d.

October, 1757.

	Laft balance	261	12	06
17	To Anthony Coule, of him	3	200	00
20	John Biddy, ditto	4	218	00
31	John Gray and company, ditto	3	515	03
pt.	Merchandize ſince 1 st of October		86	11 04

L. 97—04—07 Received 358 17 01

November, 1757.

BOOK-KEEPING.

213

2.

Payments ——— Creditor.

l. s. d.

October, 1757.

13	By Thomas Richards, to him	2	10	00	00
28	John Fair, ditto	2	20	00	00
31	Expences, &c. since 1st of August	1	32	00	00

	Paid this month	62	00	00
	Resting per balance	296	17	01
		358	17	01

November, 1757.

DAY-BOOK,

OR

JOURNAL.

Day-Book. 1.

Accompts debtor to merchandize.		l. s. d.	
Sold.			
August 1. 1757.			
3- Richard Hughs,			
39½ ells linnen, at	1. 3-2	60	01
ditto			
3- Anthony Coule,			
58½ ells of linnen, at	1. 2-4	6	16 06
ditto 5.			
3- John Gray and company,			
3 doz scissars, at 4. 0	1. 0-12-0		
3 doz. ditto 3. 9.	0-11-3		
6 doz. round points 3. 9.	1-02-6		
6 doz. middling 2. 8.	0-16-0		
ditto 10		3	01 09
3- Richard Hughs,			
3 masses of pearl, at	1. 0-2-6	00	7 06
Merchandize sold		16	10 10

Day-Book. 2.

Accompts debtor to merchandize.

l s. d.

Sold.

August 17. 1757.

3. Thomas Wilson,

12 doz. scissars	4 3	L. 4-12-6
6 doz. middling	4 3	1-05-6
9 doz. ditto	2 8	1-04-0
20 doz. small	1 6	1-10-0

8 13 00

ditto 20

3. Anthony Couls,

1 looking glafs	L. 0-08-6
1 ditto middling	0-09-6
3 tortoise shell combs	0-06-0

0 04 00

ditto 23

4. Henry Trap,

1 doz. scissars with cases	L. 0-09-6
1 doz. without cases	0-05-6

0 15 00

Sold.

August 27. 1757.

3. Richard Hughs,

3 pair scissars half barb	L. 0-06-0
1 doz. ditto, small set	0-05-0
2 knives at 20d	0-03-4
1 doz. comb-brushes	0-03-0
6 pen knives, at 8d	0-04-0
12 doz. clasp knives	1-17-0
24 doz. knives horn handed	3-00-0

5 18 04

Merchandize sold 16 10 04

Accompts debtor to merchandize; *l. s. d.*

Sold. *l. s. d.*

August 31. 1757.

1 Receipts in ready money for goods since }
the 1st of August ———— } 42 18 10

September 3 1757.

4 Henry Trap

A parcel of scissars ———— 0 12 00

ditto 6

3 Richard Hughes,
2 masses pearl, at ———— 1 2 00

ditto 11

3 Richard Hughes,
13 ells cloth, at ———— 1 12 06

ditto 15

3 Anthony Coule,
4 masses pearl 0 6 L 0 10 0
1½ doz, pendants 4 6 0 06 0
0 16 00

ditto 16

4 Henry Trap,
12 doz. horn trumpets 2 L 1 04 0
2 doz. comb brushes 3 0 06 0
2 doz. ditto 2 0 04 0
1 14 00

Merchandize sold ———— 47 18 04

Day-Book. 4.

		l. s. d.		
Accompts debtor to merchandize.				
Sold.				
September 30. 1757.				
4.	John Biddy,			
	3 masses Ven. pearl, at	L.	1	00 0
	2 doz. scissars, at		0	09 0
	13 doz. fine combs, at		1	09 0
				218 00
	ditto			
3.	John Gray and company,			
	1 piece white gauze qt. 24 ells			
	1 piece ditto 22			
	1 piece ditto 20			
	1 piece ditto 18			
	1 piece yellow ditto 20			
	1 piece black ditto 19			
	Ells — 123 at 21d		10	15 03
	ditto			
1.	Receipts in ready money for goods since the 1st of September	} 38 6 6		
October 2. 1757.				
3.	Thomas Wilson,			
	1 doz. scissars with cases, at	L.	0	12 0
	4 masses pearl, at 2s 0d		0	08 0
	9 masses, ditto, at		3	17 4
				417
	Merchandize sold —		56	17 04

Day-Book. 5.

Accompts debtor to merchandize.

l. s. d.

Sold.

October 29. 1757.

Thomas Wilson,

2 pieces tabby, qt. 61	}	L 25	18	6
ells—8s 6d				
1 piece ditto, qt. 28	}	11	18	c
ells,—8s 6d				

37 16 6

ditto 31

Receipts in ready money for goods since
the 1st of October

86 11 4

Merchandize sold—124 07 10

THE

LEDGER.



ALPHABET.

B		M	
Bell, Germain	2	Merchandize	I
Biddy, John	4	Malon, George	2
Balance	4		
C		P	
Coule, Anthony	3	Profit and loss	4
Cash	I		
E		R	
Expen. and abatem.	I	Rept. and paym. cash.	I
		Richards, Thomas	2
F		S	
Fair, John	2	Stock	I
G		T	
Gray, John and comp.	3	Trap, Henry	4
H		W	
Hughs, Richard	3	Wilson, Thomas	3
T 2			

BOOK-KEEPING.

Ledger. 1.

		L. s. d.	
1757		Stock — Debtors	
Aug.	2	To sundry to whom I owe	110 00 00
Oct.	31	To balance N. stock	468 51 00
			795 11 00
1757		Merchandize, Debtor.	
Aug.	1	To stock per inventory	1520 00 00
Oct.	31	To P. and L. carried thither	4 97 10 00
			617 10 00
1757		Receipts of Cash, Debtor.	
Aug.	1	To stock, money per inventory	1180 00 00
	31	To fund. per book, page 1	57 03 10
	30	To sundries	69 18 08
Oct.	31	To sundries	97 04 07
			404 07 01
1757		Expences, &c. Debtor.	
Oct.	31	To payment hereon since 1 Aug.	31 19 00

Ledger 1.

			l.	d.	s.
1757		Stock—Creditor.			
Aug. 13		By sundry <i>per</i> inventory	730	00	00
Oct. 31		By pro. and loss, gain'd in 3. mon.	4	65	11 00
			795	11	00

1757		Merchandise, Creditor.			
Aug. 10		By sundries sold, day-book 1	16	10	10
27		By sundries — page — 2	16	10	04
Sept. 16		By sundries — — — 3	47	18	04
Oct. 02		By sundries — — — 4	56	17	01
31		By sundries — — — 5	124	07	10
			262	14	05
		By bal. value of remains	4	354	15 07
			617	10	00

1757		Payments of Cash, Creditor.			
Aug. 31		By sundries <i>per</i> book — 1	30	00	00
Sept. 30		By sundries—page — — 1	15	00	00
Oct. 31		By sundries—page — — 1	62	00	00
			107	00	00
		By balance, rest in cash —	4	297	07 01
			404	07	01

1757		Expences, &c. Creditor.			
Oct. 31		By profit and loss carried there —	4	31	19 00

BOOK-KEEPING.

Ledger 2.

		l.	d.	c.
1757 Aug. 1	<i>George Mason, Debtor.</i>			
	To Rock, now owing me ————	1	20	00 00
1757 Aug. 1	<i>Germain Bell, Debtor.</i>			
	To Rock now due to me ————	1	10	00 00
1757 Aug. 23	<i>Thomas Richards, Debtor.</i>			
Sept. 28	To payment, to him ————	1	20	00 00
Oct. 25	To ditto ————	1	10	00 00
	To ditto ————	1	10	00 00
	To balance now due to him ————		40	00 00
			20	00 00
			60	00 00
1757 Aug. 31	<i>John Fair, Debtor.</i>			
Sept. 22	To payment, to him ————	1	10	00 00
Oct. 28	To ditto ————	1	5	00 00
	To ditto ————	1	20	00 00
	To balance now owing him ————	4	15	00 00
			35	00 00
			50	00 00

233

L. s. d.

1757	John Fair, Creditor.	
Aug.	By Rock now due to him	500000

Ledger 13.

			l.	s.	d.
1757		<i>Richard Hughs, Debtor.</i>			
Aug.	1	To merchandize sold him	1	6	5 1
	10	To ditto	1	0	7 6
	27	To ditto, a parcel	1	5	18 4
Sept.	6	To ditto, 2 masses of pearl	1	0	5 00
	11	To ditto, 13 ells of cloth	1	1	12 6
				14	8 5
2757		<i>Anthony Couls, Debtor.</i>			
Aug.	5	To merchandize sold him	1	6	16 6
	20	To ditto, a parcel	1	1	4 00
Sept.	15	To ditto, a parcel	1	0	16 00
				8	16 6
1757		<i>John Gray and comp. Debtor.</i>			
Aug.	5	To merchandize, a parcel	1	3	1 9
Sept.	30	To ditto, a parcel	1	10	15 3
				13	17 00
1757		<i>Thomas Wilson, Debtor.</i>			
Aug.	17	To merchandize, a parcel	1	8	13 00
Oct.	2	To ditto, a parcel	1	4	17 4
	29	To ditto, a parcel	1	3	16 6
				5	1 6 10

BOOK-KEEPING.

225

Ledger 3.

			l.	s.	d.
1657	<i>Richard Hughes, Creditor,</i>				
Aug. 18	By receipt of him	1	4	00	00
Sept. 11	By ditto	1	8	15	12
			12	15	12
	By balance now owing me	4	1	12	6
			14	8	5
1757	<i>Anthony Coule, Creditor,</i>				
Aug. 12	By receipt of him	1	3	6	6
Sept. 11	By ditto	1	3	00	00
Oct. 11	By ditto	1	2	00	00
	Balance		10	00	00
			9	16	6
1757	<i>John Gray and comp. Creditor.</i>				
Aug. 16	By receipt of them	1	1	10	6
Sept. 30	By ditto	1	2	00	3
Oct. 31	By ditto	1	5	15	3
	Balance		9	6	00
	By balance now owing me	4	4	17	00
			13	17	00
1757	<i>Thomas Wilson, Creditor.</i>				
Aug. 20	By receipt of him	1	4	13	00
Oct. 31	By balance now owing me	4	40	13	10
			51	06	10

BOOK-KEEPING.

Ledger 4.

		L. s. d.	
Ledger 4.			
Henry Trap, Debtor.			
1757	Aug. 23	To merchandize, a parcel	1 01 00
	Sept. 3	To ditto	1 01 00
	16	To ditto	1 12 00
			3 10 00
John Biddy, Debtor.			
1757	Sept. 30	To merchandize, a parcel	1 21 00
Profit and loss, Debtor.			
1757	Oct. 31	To expences, &c. brought here	2 31 19 00
		To stock, gained since Aug. 1st	1 69 11 00
			97 10 00
Balance, Debtor.			
1757	Oct. 31	To merchandize now remaining	1 354 16 7
		To receipts, or cash resting	1 297 17 1
		To George Mason, now owing	2 10 00 00
		To Germain Bell, ditto	2 9 00 00
		To Richard Hughes, ditto	3 1 12 6
		To John Gray, and company, ditto	3 4 11 00
		To Thomas Wilson, ditto	3 0 13 00
		To Anthony Coule, ditto	3 0 10 10
			720 11 00

BOOK-KEEPING.

227

Ledger 4.

1757 *Henry Trap, Creditor.*

Aug 30 By receipt of him

Sept. 24 By ditto in full

	<i>l.</i>	<i>s.</i>	<i>d.</i>
	1	01	500
	1	20	000
		30	100

1757 *John Biddy, Creditor.*

Oct. 20 By receipt in full

1	2	18	00
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1757 *Profit and loss, Creditor.*

Oct. 31 By merch. to close that account

1	97	10	00
---	----	----	----

1757 *Balance, Creditor.*

Oct. 31 By *Thomas Richards*, I owe him

By *John Fair*, ditto

2	20	00	00
---	----	----	----

2	15	00	00
---	----	----	----

2	35	00	00
---	----	----	----

1	68	50	00
---	----	----	----

1	72	00	00
---	----	----	----

By *stock*, for its cost

DIRECTIONS.

Quest. **H**AVING taught me how to state, post, and balance my books; what method must I use at the going out of these books into others?

Ans. From the balance of these books (see ledger, fol. 41) you must draw out another inventory, as follows:

The INVENTORY.

London, October 31. 1757.

I Have in merchandize of fundry }
 sorts to the value of } L. 354 16 07
 In cash, or ready money — — 297 07 01

Owing to me, by

George Mason	— — — — —	L. 10 00 00
Germain Bell	— — — — —	5 00 00
Richard Hughs	— — — — —	1 12 06
John Gray and company	— — — — —	4 11 00
Thomas Wilson	— — — — —	46 13 10
Anthony Coule	— — — — —	00 10 00
		720 11 10

Owing by me, to

Thomas Richards	L. 20 00 00
John Fair	— — 15 00 00
	L. 35 00 00
My neat stock	685 11 00

— And post it into your new ledger, as by the directions given for the posting your other inventory.

Q In the cash-book on debtor side, (for instance, in the month of *August*) are figures just before the money-lines, as 1 before 180s and 3 before 4s, &c. I desire to know what those figures shew.

A The figure 1 (before 180/ in the first line) shews the folio of the ledger, on which the accompt of stock stands.

The figure 3 following *Richard Hughs*, in the next line, shews the folio of the ledger, whereon the accompt of *Richard Hughs* stands.

The like is to be understood of the figure 3 following *Anthony Couls*: the 3 following *John Gray* and company: the 3 following *Thomas Wilson*, and the 4 following *Henry Trap*, on debtor side of the said cash-book for the month of *August*, and of those on debtor side, of the said book for the months of *September* and *October*.

Q What do the figures (on the creditor side of the said cash-book) which come just before the money-lines shew? For instance, in the month of *August* on creditors side, of the figure 2 following *Thomas Richards* just before the 20/, and the 2 following *John Fair*, just before 10/.

A The figure 2 following *Thomas Richards*, shews that his accompt stands in ledger, folio 2. And the 2 following *John Fair*, shews that his accompt stands also in the said ledger, folio 2.

The like is to be understood of the figures 2, 2 on creditor side of the cash book for *September*.

And of the figures 2, 2, 2 on creditor side of the cash book for *October*.

Q What does the L. 57 : 3 : 10, at the foot of the debtor side of the cash book for the month of *August*, shew.

A It shews the total sum received during the month of *August*, and is produced by subtracting the 180 £. in the first line from the L. 237 : 3 : 10, on the debtor of that accompt.

The like is to be understood of the L. 69 : 18 : 8, at the foot of *September*, and of the L. 97 : 8 : 7, at the foot of *October*.

And as those sums shew the total receipt during each month, so the sum 307 on credit side of the cash book for *August*, the sum of 151 for *September*, and the 621 for *October*, shew the total payment during each of those months.

2 How is the balance (or rest of money) in cash

2. You must subtract the 30/ (on credit of August's cash book) from the L. 237 : 3 : 10, on the debit side and the remainder being L. 207 : 3 : 10, the balance, or less of money, in cash, which placed under the 30/ paid, and added to it, makes a just balance with the debit side. See the cash book for the month of August.

You are to do in the like manner to find the balance, or roll of cash for the months of September and October. See the cash book for these months.

2 What does the figure 3 against *Richard Hughes* (in the day-book) and the 3 against *Anthony Cause*, and the other figures in the margin of the day-book, shew.

They then the folios of the ledger whereon the accounts of *Richard Hughes*, *Anthony Gonsi*, and the other accounts stand.

And also knew that those persons or accounts are debtors, as the figure 1 under the small line of the margin, and at the foot of each page of the day book, just against the words merchandize sold shews that the account of merchandize stands in the ledger, on folio 1, and is creditor.

Q What do the figures in the ledger coming just before the money lines on debtor side, show.

4 As the words of each line on the debtor side of said ledger, immediately following the word to, shew what accounts or persons are to be credited, or counter-parted, to those figures shew on what folios in the ledger such accounts or persons are to be found.

Q What does the figures coming just before the money lines on the creditor side of the ledger shew.

As the words in each line on creditors side of the said ledger immediately following the word by, shew what accompts or persons are debited or counterparted, To those figures shew on what folios in the ledger those accompts or persons are to be found.

Q How must I enter the goods I buy.

A You must enter them in a bought book: as for instance,

Merchandise debitor to persons.

Bought

Of (suppose) *Richard Thomas*, viz.
46 ells linen, at 3s } L. 6-18-0
per ell
52 ells ditto, at 10s } L. 5-2-0
per ell

This article (and others of the like nature) must be posted in your ledger, to the credit of the account of the persons on whom bought, here *Richard Thomas*; and the total of each page in the bought book, must be posted in the said ledger to the debit of account of merchandizes.

Q. I have been told, that a good method of book-keeping will shew the owner of the books, or others concerned, these following necessary (and many other) particulars, viz.

Concerning merchandizes.

- N^o 1. What goods (during the whole, or any time of the account) have been bought, brought into charge, when, of whom, and at what price.
2. What goods (as above) have been sold, issued out of the charge, when, to whom, and at what price.
3. The whole quantity bought and sold, and the profit, or loss, arising on those so disposed of.

Concerning cash or money.

4. What sum of money have been received (as above) of whom, and on what account: Also whether in part or in full.
5. What sum total has been received and paid (during the whole, or during any time, as above, and consequently the sum resting in cash.

Concerning persons with whom I deal.

6. For what sums they stand indebted, from what dates, and for what.
7. For what sums I stand indebted to them, from what dates, and for what.
8. Whether any balance, or remainder, be due from them to me, or from me to them, and what sum.

Concerning my expences.

9. What expence I have been at (during the time of the account, or any part of it) and such expence considered and allowed; then what neat gain or loss has attended.

Concerning my stock.

10. What stock I began with, and what my present stock is, and what particulars composed each.

Now I desire you to shew me how this method will answer all these particulars.

A Concerning merchandize, your bought book will shew you the particular demands of numb. 1.

And your day book those in numb. 12.

The debtor side of account of merchandize in your ledger will shew the whole quantity bought, and its creditor side the whole quantity sold, and the same account shews you also the profit and loss arising on those you have disposed of. See the account of merchandize in ledger, folio 1. thus the demands number 3. are shewn.

Concerning cash or money, the debtor side of your cash book answers the demands in number 4. and the creditor side of the said book shews the demands in number 5. and consequently those in number 6. by comparing the debtor and creditor sides.

The creditor side also of the said book, shews the balance (or rest that should be found) in cash.

Concerning persons with whom you deal.

The debtor sides of their accounts shew the demands of number 6. and the creditor sides those of number 7.

And consequently their accounts compared in debtor and creditor, shew the demands of number 8.

Concerning your expences.

The account of expences in your ledger shews your expences, as in number 9. and the account of profit and loss, will shew the neat gain or loss.

Concerning your stock.

The account of stock in your ledger shews what you began with, and the account of balance shews your present stock, and of what particulars it consists, and answers the demands in number 10.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

Num ^r	1 Farthing				2 Farthings				3 Farthings			
	l.	s.	d.	q.	l.	s.	d.	q.	l.	s.	d.	q.
1	0	0	0	1	0	0	0	2	0	0	0	3
2	0	0	0	2	0	0	0	1	0	0	0	1
3	0	0	0	3	0	0	0	1	2	0	0	2
4	0	0	0	4	0	0	0	2	0	0	0	3
5	0	0	0	1	1	0	0	2	2	0	0	3
6	0	0	0	1	2	0	0	3	0	0	0	4
7	0	0	0	1	3	0	0	3	2	0	0	5
8	0	0	0	2	0	0	0	4	0	0	0	6
9	0	0	0	2	1	0	0	4	2	0	0	6
10	0	0	0	2	2	0	0	5	0	0	0	7
20	0	0	0	5	0	0	0	10	0	0	0	1
30	0	0	0	7	2	0	0	1	3	0	0	1
40	0	0	0	10	0	0	0	1	8	0	0	2
50	0	0	1	0	2	0	0	2	1	0	0	3
60	0	0	1	3	0	0	0	2	6	0	0	3
70	0	0	1	5	2	0	0	2	1	0	0	4
80	0	0	1	8	0	0	0	3	4	0	0	5
90	0	0	1	10	2	0	0	3	9	0	0	5
100	0	0	2	1	0	0	0	4	8	0	0	6
200	0	0	4	2	0	1	0	8	4	0	0	12
300	0	0	6	3	0	0	1	12	6	0	0	18
400	0	0	8	4	0	0	1	16	8	0	0	24
500	0	0	10	5	0	1	0	20	10	0	0	30
600	0	0	12	6	0	1	0	24	12	0	0	36
700	0	0	14	7	0	1	0	28	14	0	0	42
800	0	0	16	8	0	1	0	32	16	0	0	48
900	0	0	18	9	0	1	0	36	18	0	0	54
1000	1	0	10	0	2	1	8	0	3	2	6	0
2000	2	1	8	0	4	3	4	0	6	0	0	0
3000	3	2	6	0	6	5	6	0	9	7	6	0
4000	4	3	4	0	8	6	8	0	12	10	0	0
5000	5	4	2	0	10	8	4	0	15	12	6	0
10000	10	8	4	0	20	16	8	0	31	5	0	0

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

The Quantity of the Commodity to be bought or sold.	Numb.	1 Penny			2 Pence			3 Pence		
		s.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	0	1	0	0	2	0	0	3
2	0	0	0	2	0	0	4	0	0	6
3	0	0	0	3	0	0	6	0	0	9
4	0	0	0	4	0	0	8	0	0	12
5	0	0	0	5	0	0	10	0	0	15
6	0	0	0	6	0	0	12	0	0	18
7	0	0	0	7	0	0	14	0	0	21
8	0	0	0	8	0	0	16	0	0	24
9	0	0	0	9	0	0	18	0	0	27
10	0	0	1	0	0	0	2	0	0	3
11	0	0	1	1	0	0	4	0	0	6
12	0	0	1	2	0	0	6	0	0	9
13	0	0	1	3	0	0	8	0	0	12
14	0	0	1	4	0	0	10	0	0	15
15	0	0	1	5	0	0	12	0	0	18
16	0	0	1	6	0	0	14	0	0	21
17	0	0	1	7	0	0	16	0	0	24
18	0	0	1	8	0	0	18	0	0	27
19	0	0	1	9	0	0	20	0	0	30
20	0	0	2	0	0	0	2	0	0	3
21	0	0	2	1	0	0	4	0	0	6
22	0	0	2	2	0	0	6	0	0	9
23	0	0	2	3	0	0	8	0	0	12
24	0	0	2	4	0	0	10	0	0	15
25	0	0	2	5	0	0	12	0	0	18
26	0	0	2	6	0	0	14	0	0	21
27	0	0	2	7	0	0	16	0	0	24
28	0	0	2	8	0	0	18	0	0	27
29	0	0	2	9	0	0	20	0	0	30
30	0	0	3	0	0	0	2	0	0	3
31	0	0	3	1	0	0	4	0	0	6
32	0	0	3	2	0	0	6	0	0	9
33	0	0	3	3	0	0	8	0	0	12
34	0	0	3	4	0	0	10	0	0	15
35	0	0	3	5	0	0	12	0	0	18
36	0	0	3	6	0	0	14	0	0	21
37	0	0	3	7	0	0	16	0	0	24
38	0	0	3	8	0	0	18	0	0	27
39	0	0	3	9	0	0	20	0	0	30
40	0	0	4	0	0	0	2	0	0	3
41	0	0	4	1	0	0	4	0	0	6
42	0	0	4	2	0	0	6	0	0	9
43	0	0	4	3	0	0	8	0	0	12
44	0	0	4	4	0	0	10	0	0	15
45	0	0	4	5	0	0	12	0	0	18
46	0	0	4	6	0	0	14	0	0	21
47	0	0	4	7	0	0	16	0	0	24
48	0	0	4	8	0	0	18	0	0	27
49	0	0	4	9	0	0	20	0	0	30
50	0	0	5	0	0	0	2	0	0	3
51	0	0	5	1	0	0	4	0	0	6
52	0	0	5	2	0	0	6	0	0	9
53	0	0	5	3	0	0	8	0	0	12
54	0	0	5	4	0	0	10	0	0	15
55	0	0	5	5	0	0	12	0	0	18
56	0	0	5	6	0	0	14	0	0	21
57	0	0	5	7	0	0	16	0	0	24
58	0	0	5	8	0	0	18	0	0	27
59	0	0	5	9	0	0	20	0	0	30
60	0	0	6	0	0	0	2	0	0	3
61	0	0	6	1	0	0	4	0	0	6
62	0	0	6	2	0	0	6	0	0	9
63	0	0	6	3	0	0	8	0	0	12
64	0	0	6	4	0	0	10	0	0	15
65	0	0	6	5	0	0	12	0	0	18
66	0	0	6	6	0	0	14	0	0	21
67	0	0	6	7	0	0	16	0	0	24
68	0	0	6	8	0	0	18	0	0	27
69	0	0	6	9	0	0	20	0	0	30
70	0	0	7	0	0	0	2	0	0	3
71	0	0	7	1	0	0	4	0	0	6
72	0	0	7	2	0	0	6	0	0	9
73	0	0	7	3	0	0	8	0	0	12
74	0	0	7	4	0	0	10	0	0	15
75	0	0	7	5	0	0	12	0	0	18
76	0	0	7	6	0	0	14	0	0	21
77	0	0	7	7	0	0	16	0	0	24
78	0	0	7	8	0	0	18	0	0	27
79	0	0	7	9	0	0	20	0	0	30
80	0	0	8	0	0	0	2	0	0	3
81	0	0	8	1	0	0	4	0	0	6
82	0	0	8	2	0	0	6	0	0	9
83	0	0	8	3	0	0	8	0	0	12
84	0	0	8	4	0	0	10	0	0	15
85	0	0	8	5	0	0	12	0	0	18
86	0	0	8	6	0	0	14	0	0	21
87	0	0	8	7	0	0	16	0	0	24
88	0	0	8	8	0	0	18	0	0	27
89	0	0	8	9	0	0	20	0	0	30
90	0	0	9	0	0	0	2	0	0	3
91	0	0	9	1	0	0	4	0	0	6
92	0	0	9	2	0	0	6	0	0	9
93	0	0	9	3	0	0	8	0	0	12
94	0	0	9	4	0	0	10	0	0	15
95	0	0	9	5	0	0	12	0	0	18
96	0	0	9	6	0	0	14	0	0	21
97	0	0	9	7	0	0	16	0	0	24
98	0	0	9	8	0	0	18	0	0	27
99	0	0	9	9	0	0	20	0	0	30
100	0	0	10	0	0	0	2	0	0	3
101	0	0	10	1	0	0	4	0	0	6
102	0	0	10	2	0	0	6	0	0	9
103	0	0	10	3	0	0	8	0	0	12
104	0	0	10	4	0	0	10	0	0	15
105	0	0	10	5	0	0	12	0	0	18
106	0	0	10	6	0	0	14	0	0	21
107	0	0	10	7	0	0	16	0	0	24
108	0	0	10	8	0	0	18	0	0	27
109	0	0	10	9	0	0	20	0	0	30
110	0	0	11	0	0	0	2	0	0	3
111	0	0	11	1	0	0	4	0	0	6
112	0	0	11	2	0	0	6	0	0	9
113	0	0	11	3	0	0	8	0	0	12
114	0	0	11	4	0	0	10	0	0	15
115	0	0	11	5	0	0	12	0	0	18
116	0	0	11	6	0	0	14	0	0	21
117	0	0	11	7	0	0	16	0	0	24
118	0	0	11	8	0	0	18	0	0	27
119	0	0	11	9	0	0	20	0	0	30
120	0	0	12	0	0	0	2	0	0	3
121	0	0	12	1	0	0	4	0	0	6
122	0	0	12	2	0	0	6	0	0	9
123	0	0	12	3	0	0	8	0	0	12
124	0	0	12	4	0	0	10	0	0	15
125	0	0	12	5	0	0	12	0	0	18
126	0	0	12	6	0	0	14	0	0	21
127	0	0	12	7	0	0	16	0	0	24
128	0	0	12	8	0	0	18	0	0	27
129	0	0	12	9	0	0	20	0	0	30
130	0	0	13	0	0	0	2	0	0	3
131	0	0	13	1	0	0	4	0	0	6
132	0	0	13	2	0	0	6	0	0	9
133	0	0	13	3	0	0	8	0	0	12
134	0	0	13	4	0	0	10	0	0	15
135	0	0	13	5	0	0	12	0	0	18
136	0	0	13	6	0	0	14	0	0	21
137	0	0	13	7	0	0	16	0	0	24
138	0	0	13	8	0	0	18	0	0	27
139	0	0	13	9	0	0	20	0	0	30
140	0	0	14	0	0	0	2	0	0	3
141	0	0	14	1	0	0	4	0	0	6
142	0	0	14	2	0	0	6	0	0	9
143	0	0	14	3	0	0	8	0	0	12
144	0	0	14	4	0	0	10	0	0	15
145	0	0	14	5	0	0	12	0	0	18
146	0	0	14	6	0	0	14	0	0	21
147	0	0	14	7	0	0	16	0	0	24
148	0	0	14	8	0	0	18	0	0	27
149	0	0	14	9	0	0	20	0	0	30
150	0	0	15	0	0	0	2	0	0	3
151	0	0	15	1	0	0	4	0	0	6
152	0	0	15	2	0	0	6	0	0	9
153	0	0	15	3	0	0	8	0	0	12
154	0	0	15	4	0	0	10	0	0	15
155	0	0	15	5	0	0	12	0	0	18
156	0	0	15	6	0	0	14	0	0	21
157	0	0	15	7	0	0	16	0	0	24
158	0	0	15	8	0	0	18	0	0	27
159	0	0	15	9	0	0	20	0	0	30
160	0	0	16	0	0	0	2	0	0	3
161	0	0	16	1	0	0	4	0	0	6
162	0	0	16	2	0	0	6	0	0	9

Examples ready set up.

1935

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

The Quantity of the Commodity to be bought or sold.	4 Pence.			5 Pence.			6 Pence.		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
0 10	0	0	40	0	0	50	0	0	60
1 20	0	4	80	0	0	100	0	1	00
2 30	0	1	00	0	1	30	0	1	60
3 40	0	1	40	0	1	80	0	2	00
4 50	0	1	80	0	2	100	0	2	60
5 60	0	2	00	0	2	60	0	3	00
6 70	0	2	40	0	2	110	0	3	60
7 80	0	2	80	0	3	40	0	4	00
8 90	0	3	00	0	3	90	0	4	60
9 100	0	3	40	0	4	20	0	5	00
10 200	0	6	80	0	8	40	0	10	00
11 300	0	10	00	0	12	60	0	15	00
12 400	0	13	40	0	16	80	1	0	00
13 500	0	16	80	1	0	100	1	5	00
14 600	1	0	00	10	5	00	1	10	00
15 700	1	3	40	11	9	20	1	15	00
16 800	1	6	80	13	13	40	2	0	00
17 900	1	10	00	16	17	60	2	5	00
18 1000	1	13	40	2	21	80	2	10	00
19 2000	3	6	80	4	3	40	5	0	00
20 3000	5	0	00	6	5	00	7	0	00
21 4000	6	13	40	8	6	80	10	0	00
22 5000	8	6	80	10	8	40	12	0	00
23 6000	10	0	00	12	10	00	15	0	00
24 7000	11	13	40	14	11	80	17	0	00
25 8000	13	6	80	16	13	40	20	0	00
26 9000	15	0	00	18	15	00	22	0	00
27 10000	16	13	40	20	16	80	25	0	00
28 20000	23	6	80	24	23	40	50	0	00
29 30000	35	0	00	36	30	00	75	0	00
30 40000	46	13	40	48	46	80	100	0	00
31 50000	58	6	80	60	58	40	125	0	00
32 100000	106	13	40	108	106	80	250	0	00

This Price of the Commodity by the Tun, Hundred,
 Pound, Ounce, Dozen, Yard, Ell, &c.

Numb	7 Pence			8 Pence			9 Pence		
	l.	s.	d.	l.	s.	d.	l.	s.	d.
1	0	0	7	0	0	8	0	1	0
2	0	1	2	0	2	4	0	2	1
3	0	1	9	0	3	0	0	3	2
4	0	2	4	0	4	8	0	4	3
5	0	2	11	0	5	4	0	5	4
6	0	3	6	0	6	0	0	6	5
7	0	3	13	0	7	8	0	7	6
8	0	4	8	0	8	4	0	8	7
9	0	4	15	0	9	0	0	9	8
10	0	5	10	0	10	8	0	10	9
20	0	10	2	0	20	4	0	20	18
30	0	15	6	0	30	0	0	30	27
40	0	20	10	0	40	8	0	40	36
50	0	25	15	0	50	16	0	50	45
60	0	30	20	0	60	24	0	60	54
70	0	35	25	0	70	32	0	70	63
80	0	40	30	0	80	40	0	80	72
90	0	45	35	0	90	48	0	90	81
100	0	50	40	0	100	56	0	100	90
200	0	100	80	0	200	112	0	200	180
300	0	150	120	0	300	168	0	300	270
400	0	200	160	0	400	224	0	400	360
500	0	250	200	0	500	280	0	500	450
600	0	300	240	0	600	336	0	600	540
700	0	350	280	0	700	392	0	700	630
800	0	400	320	0	800	448	0	800	720
900	0	450	360	0	900	504	0	900	810
1000	0	500	400	0	1000	560	0	1000	900
2000	0	1000	800	0	2000	1120	0	2000	1800
3000	0	1500	1200	0	3000	1680	0	3000	2700
4000	0	2000	1600	0	4000	2240	0	4000	3600
5000	0	2500	2000	0	5000	2800	0	5000	4500
6000	0	3000	2400	0	6000	3360	0	6000	5400
7000	0	3500	2800	0	7000	3920	0	7000	6300
8000	0	4000	3200	0	8000	4480	0	8000	7200
9000	0	4500	3600	0	9000	5040	0	9000	8100
10000	0	5000	4000	0	10000	5600	0	10000	9000

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

Numb	10 Pence.			11 Pence.		
	l.	s.	d.	l.	s.	d.
1	0	0	10	0	0	11
2	0	1	8	0	1	10
3	0	2	6	0	2	9
4	0	3	4	0	3	8
5	0	4	2	0	4	7
6	0	5	0	0	5	6
7	0	5	10	0	6	5
8	0	6	8	0	7	4
9	0	7	6	0	8	3
10	0	8	4	0	9	2
20	0	16	8	0	18	4
30	1	5	0	1	7	6
40	1	13	4	1	16	8
50	2	1	8	2	5	10
60	2	10	0	2	13	0
70	2	18	4	3	4	2
80	3	6	8	3	13	4
90	3	15	0	4	2	0
100	4	3	4	4	11	8
200	8	6	8	9	3	4
300	12	10	0	13	15	0
400	16	13	4	18	6	8
500	20	16	8	22	18	4
600	25	0	0	27	10	0
700	29	3	4	32	1	8
800	33	6	8	36	13	4
900	37	10	0	41	5	0
1000	41	13	4	45	6	8
2000	83	6	8	91	3	4
3000	125	0	0	137	10	0
4000	166	13	4	183	6	8
5000	208	6	8	229	3	4
10000	417	13	4	458	6	8

The Quantity of the Commodity to be bought or sold.

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred,
Pound, Ounce, Dozen, Yard, Ell, &c.

The Quantity of the Commodity to be bought or sold.	1 Shilling.		2 Shillings.		3 Shillings.	
	l.	s.	l.	s.	l.	s.
1	0	1	0	2	0	3
2	0	2	0	4	0	6
3	0	3	0	6	0	9
4	0	4	0	8	0	12
5	0	5	0	10	0	15
6	0	6	0	12	1	18
7	0	7	0	14	1	21
8	0	8	0	16	1	24
9	0	9	0	18	1	27
10	0	10	1	0	1	30
20	1	0	2	0	3	0
30	1	10	3	0	4	0
40	2	0	4	0	6	0
50	2	10	5	0	7	0
60	3	0	6	0	9	0
70	3	10	7	0	10	0
80	4	0	8	0	12	0
90	4	10	9	0	13	0
100	5	0	10	0	15	0
200	10	0	20	0	30	0
300	15	0	30	0	45	0
400	20	0	40	0	60	0
500	25	0	50	0	75	0
600	30	0	60	0	90	0
700	35	0	70	0	105	0
800	40	0	80	0	120	0
900	45	0	90	0	135	0
1000	50	0	100	0	150	0
2000	100	0	200	0	300	0
3000	150	0	300	0	450	0
4000	200	0	400	0	600	0
5000	250	0	500	0	750	0
10000	500	0	1000	0	1500	0

Account ready cast

239

The Price of the Commodity by the Tun, Hundred, Pound, Quince, Dozen, Yard, Ell, &c.

Num	4 Shillings		5 Shillings		6 Shillings	
	l.	s.	l.	s.	l.	s.
1	0	3	4	0	5	6
2	0	6	8	0	10	12
3	0	9	12	0	15	18
4	0	12	16	0	20	24
5	1	0	20	0	25	30
6	1	3	24	0	30	36
7	1	6	28	0	35	42
8	1	9	32	0	40	48
9	1	12	36	0	45	54
10	2	0	40	0	50	60
20	4	0	80	0	100	120
30	6	0	120	0	150	180
40	8	0	160	0	200	240
50	10	0	200	0	250	300
60	12	0	240	0	300	360
70	14	0	280	0	350	420
80	16	0	320	0	400	480
90	18	0	360	0	450	540
100	20	0	400	0	500	600
200	40	0	800	0	1000	1200
300	60	0	1200	0	1500	1800
400	80	0	1600	0	2000	2400
500	100	0	2000	0	2500	3000
600	120	0	2400	0	3000	3600
700	140	0	2800	0	3500	4200
800	160	0	3200	0	4000	4800
900	180	0	3600	0	4500	5400
1000	200	0	4000	0	5000	6000
2000	400	0	8000	0	10000	12000
3000	600	0	12000	0	15000	18000
4000	800	0	16000	0	20000	24000
5000	1000	0	20000	0	25000	30000
10000	2000	0	40000	0	50000	60000

The Quantity of the Commodity to be bought or sold.

The Quantity of the Commodity to be bought or sold.

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

The Quantity of the Commodity to be bought or sold.

Numb	7 Shillings		8 Shillings		9 Shillings		10 Shill.	
	l.	s.	l.	s.	l.	s.	l.	s.
1	0	7	0	8	0	9	0	10
2	0	14	0	16	0	18	0	20
3	1	1	1	4	1	7	1	10
4	1	8	1	12	1	16	2	0
5	1	15	2	0	2	5	2	10
6	2	2	2	8	2	14	3	0
7	2	9	2	16	3	3	3	10
8	2	16	3	4	3	11	4	0
9	3	3	3	12	4	1	4	10
10	3	10	4	0	4	10	5	0
20	7	0	8	0	9	0	10	0
30	10	10	12	0	13	10	15	0
40	14	0	16	0	18	0	20	0
50	17	10	20	0	22	10	25	0
60	21	0	24	0	27	0	30	0
70	24	10	28	0	31	10	35	0
80	28	0	32	0	36	0	40	0
90	31	10	36	0	40	10	45	0
100	35	0	40	0	45	0	50	0
200	70	0	80	0	90	0	100	0
300	105	0	120	0	135	0	150	0
400	140	0	160	0	180	0	200	0
500	175	0	200	0	225	0	250	0
600	210	0	240	0	270	0	300	0
700	245	0	280	0	315	0	350	0
800	280	0	320	0	360	0	400	0
900	315	0	360	0	405	0	450	0
1000	350	0	400	0	450	0	500	0
2000	700	0	800	0	900	0	1000	0
3000	1050	0	1200	0	1350	0	1500	0
4000	1400	0	1600	0	1800	0	2000	0
5000	1750	0	2000	0	2250	0	2500	0
10000	3500	0	4000	0	4500	0	5000	0

The Quantity of the Commodity to be bought or sold.

Accounts ready cast up.

241

The Price of the Commodity by the Tun, Hundred, Pound, Ounce, Dozen, Yard, Ell, &c.

Numb	1 Lib.	2 Lib.	3 Lib.	4 Lib.	5 Lib.
	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25
6	6	12	18	24	30
7	7	14	21	28	35
8	8	16	24	32	40
9	9	18	27	36	45
10	10	20	30	40	50
20	20	40	60	80	100
30	30	60	90	120	150
40	40	80	120	160	200
50	50	100	150	200	250
60	60	120	180	240	300
70	70	140	210	280	350
80	80	160	240	320	400
90	90	180	270	360	450
100	100	200	300	400	500
200	200	400	600	800	1000
300	300	600	900	1200	1500
400	400	800	1200	1600	2000
500	500	1000	1500	2000	2500
600	600	1200	1800	2400	3000
700	700	1400	2100	2800	3500
800	800	1600	2400	3200	4000
900	900	1800	2700	3600	4500
1000	1000	2000	3000	4000	5000
2000	2000	4000	6000	8000	10000
3000	3000	6000	9000	12000	15000
4000	4000	8000	12000	16000	20000
5000	5000	10000	15000	20000	25000
6000	6000	12000	18000	24000	30000
7000	7000	14000	21000	28000	35000
8000	8000	16000	24000	32000	40000
9000	9000	18000	27000	36000	45000
10000	10000	20000	30000	40000	50000

The Quantity of the Commodity to be bought or sold.

X

The Use of the Tables before-going.

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2

How to learn Geography without the Direction of a

A Compleat

COMPENDIUM OF GEOGRAPHY;

Describing all the

Empires, Kingdoms, and Dominions

In The

Whole WORLD.

Shewing their

Boundes, Situation, Dimensions, Religions, Languages,
Commodities, Divisions, Rivers, Mountains, Lakes,
with their Archbishopricks, Bishopricks, and Uni-
versities.

To which is prefixed,

A Method of learning Geography without a Master, for
the Use of such grown Persons as have neglected
this useful Study in their Youth.

And also,

A Table shewing the Parallel of Latitude, the Breadth,
and the Length of the Day in every Climate.

In a most plain and easy Method.

How to learn Geography without the Directions of a Master.

THE person who desires to learn Geography, must have a set of maps, and after reading over the situation of each empire, &c. he should be very exact in finding out in the map, the several places mentioned therein; and thus by reading each article several times over, and comparing them with the maps, any & own person may soon know the most remarkable places in the world, their situation, boundaries, &c. and will insensibly, by degrees remember the names of them.

The following maps, which may be purchased at a small expence may be sufficient to instruct any reader, and render this treatise easy and intelligible, viz.

The World, Europe, Asia, Africa, North America, South America, England, Scotland and Ireland.

'Tis highly necessary, that the different parts of each of those maps should be distinguished by different colours, or at least by points or lines.

A Table showing the Parallel of Latitude, the Breadth, and the Length of the Day in every Climate.

Climates between the Equator and the Polar Circles.

Climate	P. of Lat. Bread. Day.				P. of Lat. Bread. Day.			
	D.	M.	D.	M.	D.	M.	D.	M.
1	8	34	8	34	12	59	39	18
2	16	43	8	00	13	00	46	19
3	24	11	7	28	3	30	55	19
4	30	47	6	36	14	00	03	20
5	36	39	5	4	3	17	64	20
6	41	2	4	32	15	00	18	21
7	45	29	4	07	15	50	06	21
8	49	00	3	32	16	00	10	22
9	51	58	2	57	16	30	21	22
10	54	29	2	31	17	00	32	23
11	56	37	2	12	7	30	43	23
12	58	26	1	40	8	00	54	24

Climates between the Polar Circles and the Poles.

1	07	31	1	00	1	Mo.	4	78	30	5	00	4	Mo.
2	67	3	2	00	2	Mo.	3	34	00	5	40	5	Mo.
3	73	2	3	50	3	Mo.	6	90	00	6	00	6	Mo.



A

Description of the World.

Geography is a science which teacheth the description of the earth. It differs from Cosmography as a part from the whole, and from Chronography and Topography as the whole from its parts.

The earth is a spherical body, which together with the water make up one globe of so perfect and exact a form, and so beautified and adorned by the God of nature, that from its elegance and beauty, it was called by the Greeks, *Kouros*, and by the Latins, *Mundus*.

It is situated according to Ptolemy and Tycho, in the centre of the world, but according to Copernicus, between the orbs of Mars and Venus; its substance so wonderful, as may well express that unlimited Power that performs infinitely beyond our imagination.

As to its magnitude, it is 21600 miles in circuit, (allowing according to the vulgar account 60 to a degree) its diameter 6874 miles; its semidiameter 3436; its superficies in square miles 148510584, and its solid content 69921796242 cubical miles.

For the better understanding all its parts, it may be divided into four general heads, viz. 1. its imaginary parts; 2. its real parts; 3. in respect of its inhabitants; and, 4. its National parts.

1. Imaginary Parts.

The imaginary parts are only supposed for the clearer understanding of this science; they are, 1. Poles, 2. Circles, 3. Zones, and, 4. Climes.

1. The Poles are the extrem points of the Axis, which is supposed to pass through the centre of the earth, and on which it is supposed to move daily about. They answer to the poles of the heavens (as the other imaginary parts) being the furthest distant from the Equator; in number two, viz. 1. The Arctick, or north pole; and, 2. The Antarctick, or south pole.

2. The circles are divided into the greater and lesser: the greater divide the world into two equal parts; number four, viz. 1. The Equator, compassing the earth equally between and farthest from the Poles; when the sun is here, the days and nights are equal. 2. The Zodiac (in which is the Ecliptic) cutting the Equator obliquely, through which the sun passes in a year. These two are immoveable. 3. The Horizon, dividing the visible parts of the heavens from the invisible. 4. The Meridian, dividing the horizon into two equal parts: when the sun is here, it is noon. These two are moveable.

The lesser circles divide the world into two unequal parts; they are, 1. The Tropicks, which terminate the sun's distance from the Equator, being 23 degr. and a half from it: when the sun is here, it is either summer or winter. They are two, viz. of Cancer on the north, and of Capricorn on the south side of the Equator. 2. The Polar Circles, 66 degrees and one half of the Equator, and 23 and one half of the Poles; they are called the Arctick and Antarctick circles. 3. The Parallels, which are parallel to the Equator, set in maps to shew the Latitude, as the Meridian lines are to shew the Longitude of places. [Note. That Latitude is the distance from the Equator, and Longitude from the first Meridian, made commonly at the Canary Isles.]

3. The Zones are certain spaces of earth included between two lesser circles. In number five; viz. one Torrid Zone, which lyes between the Tropicks; two Temperate Zones, between the Tropicks and Polar Circles; and two Frigid Zones, between the Polar Circles and the Poles.

4. A Clime, or Climate, is a space of earth, between two parallels, in which the longest day is increased half an hour: as for example, in the first Clime, the longest

day is 12 hours and a half; in the second 13 hours; in the third, 13 hours and a half, &c. they are in number 24; that is from the Equator to the Polar Circles.

2. Real Parts.

The real parts are such as have a real existence upon the superficies of the earth. Divided into, 1. Water, and 2. Land.

1. Water is divided into, 1. Ocean, called a general collection or rendezvous of all waters, giving bounds to the Regions of the earth. 2. Sea; a part of the Ocean encompassed with land, except one strait, such as the Mediterranean and Baltick. 3. Strait, a part of the ocean, restrained into narrow bounds, opening the way to a sea, as those of Magellanica and Gibraltar. 4. Lake, a large space of water wholly encompassed with land, as *Parina* and *Zaire*. 5. Creek or Gulf, a crooked shore, thrusting forth as it were two arms to hold the sea, as those of Venice and Lepanto; as for Rivers, Ditches, Brooks, Fountains, &c. need no description.

2. Land, divided into, 1. Continent, a vast tract of land where many nations are joined together, as Europe, Asia, &c. 2. Island, a space of land, wholly encompassed with sea, as Britain, Japan, &c. 3. Peninsula, a space of land, encompassed with sea, except one small part, as *Morea*, *Malacca*, &c. 4. Isthmus, is that space of land that joins a peninsula to a continent. 5. Promontory, a mountain shooting itself into the sea, the end of which is called a Cape, as the Cape of Good Hope, Cape Verd, &c. As for Mountains, Rocks, Valleys, Fields, Forests, Woods, Plains, &c. are all well known.

3. Inhabitants.

The earth is divided in respect of its inhabitants, into the right hand and left. 1. To Poets the north was counted the right hand, and the south the left. 2. To Priests, the south is the right hand, and the north the left. 3. To Astronomers, the west is the right hand, and the east the left. And, 4. to Geographers, the east

is the right, and the west the left. The inhabitants themselves are distinguished; 1. In respect of their Situation. 2. According to their Shadows. 3. In respect to the Position of the Globe. And, 4. According to the countries.

1. Those according to their situations are divided into, 1. Antæci, which ly under the same Meridian, and same Longitude, but on different sides of the Equator. 2. Perisæci, which live on the same side of the Equator, and the same Latitude, but on opposite sides of the Globe. 3. Antipodes, that live diametrically opposite to each other.

2. Those according to their Shadows, are divided into, 1. Amphiscii, (called also Afcii) who live on the Torrid Zone, whose shadows tend both ways. 2. Perisæci, which live in the Frigid Zones, whose shadows tend all ways. 3. Heteroscii, in the Temperate Zones, whose shadows tend but one way.

3. Those according to the Position of the Globe, are distinguished into, 1. Such as live in a Right Sphere, (under the Equator) where the stars rise and set at right angles. 2. Such as live in an oblique sphere, (between the Equator and Poles) where the stars rise and set obliquely. 3. As live in a Parallel Sphere, (under the Poles) where the stars are always parallel to the Horizon.

4. Those according to the countries, are distinguished into a great many nations and people, as French, Spaniards, Italians, Germans, &c. all which shall be more particularly treated of hereafter.

4. National Parts.

The earth in respect of its countries is divided into four parts, viz. 1. Europe. 2. Asia. 3. Africa, and 4. America; to which may be added, 5. Terra borealis incognita, and, 6. Terra australis incognita. These are divided into Empires, Kingdoms, Regions, Countries, Nations, &c. Subdivided into Provinces, Governments, Prefectures, Circles, Territories, Districts, Companies, &c.

As for the Empires, there are six of special note at present, viz. Turkey, Russia, Persia, Tartary, India, and Abyssinia; to these we may add three others that go by that name, viz. Germany, Morocco, Monomotapa. The description of these, with the kingdoms, inferior provinces, and sovereignties, is the main design of this book.

Countries are for the most part divided according to princes dominions, (but not always so;) they are separated from each other, 1. Sometimes by Sea, as Germany, and Denmark from Swedeland, 2. Sometimes by rivers, as Natolia from Turcomania, 3. Sometimes by mountains, as France from Spain, 4. Sometimes by walls, as China from Tartary, and 5. Sometimes divided only according to the towns and forts of the princes, as France from the Low-Countries. Thus much for the world in general.



A Description of EUROPE.

THE continent of Europe is situated between 36 and 72 degrees of North latitude, and between 10 degrees West, and 65 degrees of Eastern longitude, being bounded by the frozen ocean on the North; by Asia on the East; by the Mediterranean sea, which separates it from Africa on the South; and by the Atlantic ocean on the West.

This continent with its Islands, is divided into three grand divisions, viz. the Northern, containing Russia; or Moscovy, Sweden, Denmark, and Norway, Great Britain and its Islands, Iceland, Greenland, and the Islands of the Baltic.

The middle division consists of Poland, Germany, and the adjoining hereditary dominions of the house of Austria, the Low Countries, or Netherlands, France, and its conquests on the Rhine.

The Southern division contains Turkey in Europe, the tributary provinces of Moldavia, Wallachia, the Crim and lesser Tartary, Switzerland and their allies,

Italy, Spain, Portugal, and the islands in the Mediterranean.

Russia, or Moscovy, contains a very large part of Europe, but though the North is but little inhabited, as producing few of the necessaries of life, yet many of the middle and southern provinces are as fruitful as any in Europe, producing every species of corn and fruits which do not require a very warm climate. The inhabitants were civiliz'd, and from Barbarians were, in some measure, made a warlike and industrious people, by the conduct and example of Peter the Great. But they have not yet learned to trade much in their own bottoms, their goods being exported in foreign shipping; from which also they receive the produce of the southern countries of Europe. Our Russia merchants export thither coarse woollen cloths, long ells, worsted, fluff, tin, and tobacco; and from thence import hemp, flax, coarse linnen, linnen yarn, Russia leather, furs, tallow, iron, and pot-ashes. The dominions of the Russian empire extend far into Asia, and even reach to the pacific ocean, being in length from east to west upwards of 2500 miles, and 1500 in breadth from north to south. Their government is arbitrary and despotic, and their religion that of the Greek Church.

Sweden is a cold country, encompassed with barren rocks and mountains, and great part of the year covered with snow; it has few navigable rivers, but a abundance of torrents, which running precipitately from their rocks and mountains, after a short course run into the Baltic sea, which is frozen up four or five months in the year. The country is filled with great lakes and marshes; Lapland and the northern part, produce scarce any vegetables, but between the mountains there are fruitful valleys. The riches of this country chiefly consists in their mines of silver, copper, and iron. They export from Sweden hard water, pearl, castile, gunn, lead, and wooden ware, and import shallick silks, fluffs, wine, brandy, sugar, spices, tobacco, tin, and paper, and other such goods. Their trade to England has been hitherto most advantageous, the English taking the produce and many others of the coun-

try, and giving them near two thirds of silver in return: but the encouragement now given for importing iron from New England, must put a stop to a commerce so advantageous to us. The inhabitants are protestants of the Lutheran persuasion.

Denmark consists of Jutland, the islands of Zealand and Funen, and the little islands about them. The peninsula of Jutland was antiently called the Cimbric Chersonese, or the peninsula of the Cimbri. The country is generally flat, barren, and sandy; and the air is commonly thick and foggy, occasioned by the seas which almost surround it, and by the numerous lakes in the heart of the country: however, in some parts there is plenty of corn and pasturage. Its chief commodities are fish, furniture for ships, ox-hides, tallow, fir, wainment, &c. The longest day is seventeen hours and an half, and the shortest eight and an half. Their kings have been sometimes hereditary, and at other, elective: and sometimes limited, and at others absolute, as they have been even since the year 1660, when the peasants groaning under the oppressions of the nobility and gentry, agreed to make the crown absolute and hereditary: they were joined by the clergy, and the king having assembled the nobility and gentry in a garrisoned town, in a manner compelled them to resign their liberties. Their religion is Lutheran, as is that of Norway, which is subject to Denmark, and the church lands being seized by the government at the reformation, the clergy depend on the state for their subsistence.

Norway is extremely cold and barren, and on that account is but thinly inhabited. The poor people dry their stock-fish, and use it instead of bread. Their chief commodities are stock-fish, furs, tallow, pitch, mast, cables, and deal boards, which they exchange for corn, wine, fruits, and the other necessities and conveniences of life.

As to the islands of Greenland and Iceland, they are cold miserable countries, and but thinly inhabited.

As we are most concerned in the history of Great Britain and Ireland, we shall give a more particular description of them, and place this article by itself.

We shall now treat of the middle division of Europe. Poland is a large and level country, being 660 miles in length from north to south, and 560 from east to west. It is a flat, level country, well watered by lakes and rivers, the land fruitful, and producing great quantities of wheat and rye; with rich meadows and pastures which feed vast flocks and herds of cattle; it abounds with wax, pitch, salt, soap, rosin, flax, butter, cheese, corn, and rich furs. The government is an elective monarchy, but the king is so restrained by laws, that he has little else besides the shadow of royalty; and while the nobility and gentry are absolutely free, the people are in the most abject slavery, without property, or any thing they can call their own. The nobility and gentry, who are their landlords, or rather masters, are all as despotic as kings, and have the liberty of doing what mischief they please; they pay only an inconsiderable fine for taking away the life of a tenant; they seize and destroy at pleasure, so that, under the appearance of freedom, this seems to be the worst constitution on earth. As the whole nation is composed of absolute masters and abject slaves, the latter are only employed in cultivating the earth; all the manufactures necessary for the country are carried on by foreigners, and in general by the Jews, who are almost the only people who keep shops, and work at trades. The religion of the country is that of the Romish profession, but Jews and protestants are tolerated. The metropolis of Poland is Warsaw, a large and populous city.

Germany is generally on the North and East a level country, consisting of barren lands or marshy grounds; on the South it is encumbered with the mountains of the Alps; but in the middle there is a variety of hills, valleys, fruitful fields and meadows, more particularly along the banks of the Rhine, the Danube, &c. and is adorned with abundance of fine cities, castles, and palaces. This vast country is divided into ten circles, viz. three on the North, the circles of Upper and Lower Saxony, and that of Westphalia. Three on the South, the circles of Austria, Bavaria, and Swabia. Three about the middle, the circles of Franconia, of the Upper and lower Rhine. And lastly the circle of Burgundy,

which formerly consisted of the duchy of Burgundy, and the 17 provinces of the Netherlands; but these last have been long severed from the empire. There are in Germany upwards of three hundred sovereign princes and states, most of them arbitrary within their own territories. The emperor is the fountain of honour, and disposes of almost all these places that are not hereditary and which have a relation to the government of the whole empire. When an emperor dies, his successor is chosen by the nine electors; but if a king of the Romans has been chosen in the preceeding reign, he succeeds of course. By the golden bull, the person elected ought to be a Christian prince, of German extraction, and 28 years of age. Before he is installed, he signs a capitulation presented him by the electors, princes, and states of the empire; that he will not alienate the lands or revenues of the crown, introduce foreign forces, or employ foreigners in his service. In return, they are all obliged to assist him, and to join their forces in a time of common danger, and to maintain them at their own expence; and, supposing them unanimous, they are able to raise and pay 500,000 men. The people are of various opinions in religion, the principal sects are those of the Papists, Lutherans, and Calvinists; and there are also Independents, Baptists, Quakers, the Moravian brethren, &c. but the emperor is always a Papist. Germany produces corn, wine, oil, bacon, beer, rum, flax, hemp, and fine timber; also black cattle, sheep, and excellent horses. They have mines of iron, copper and silver, of which the silver mines of Hanover are of more value than all the other silver mines in Europe put together. They have also lead, salt, coal, vitriol, quicksilver, nitre, socre and sulphur. The people are excellent artists, and are remarkable for their honesty and sincerity in their dealings. Vienna is the metropolis of the German empire, and the seat of the emperor.

The hereditary dominions of the house of Austria, are Bohemia, Hungary, Transylvania, Sclavonia, and Croatia. The Netherlands are only about 300 miles long, and 200 broad; these contain seventeen provinces, of which seven are possessed by the Dutch, and are called the U-

pited provinces, and the other are called the Austrian and French Netherlands. The names of the united provinces are Holland, Zealand, Friesland, Groningen, Overissel, Gelderland, Zutphen and Utrecht. The other ten provinces are Brabant, Flanders, Hainalt, Limburg, Luxemburg, Namur, Artois, the Cambresis, the Marquisate of Antwerp, the Lordship of Malines, or Mechlin. Of these the French possess the entire provinces of Artois and Cambray, part of Flanders, Hainalt, and Luxemburg; the Dutch the north of Brabant and Flanders, and all the rest are subject to the house of Austria.

France is one of the most flourishing kingdoms in Europe, but is not so populous as Germany. The soil is exceeding fertile, producing corn, wine, oil, silk and flax in great abundance, and is extremely well situated for a foreign trade, as it lyes on the Atlantic ocean, the English channel, and the Mediterranean sea, and is watered by many large and navigable rivers. Their manufactures are of linen, woollen, silk and lace, with which they trade to Spain, Italy, Turkey, and to the East and West Indies. The air is temperate agreeable and healthful; the manners of the people are polite, and they are the most active and enterprizing of any nation in Europe. They are under an absolute government, and profess the Romish religion, though they pay less regard to the pope than any other of his children: but, nevertheless, the protestants which are here very numerous, are seldom free from persecution.

Of the southern division of Europe, Turkey is the most easterly, and therefore to preserve the order in which we proceeded with the others, we shall begin with that first.

Turkey in Europe is a very extensive empire, comprehending some of the richest countries in this part of the world, extending upwards of 1000 miles from East to West, and 500 in breadth from north to South, with the numerous islands in the Archipelago, or Egean sea; but part of them are in Asia, where, as well as in Africa, their dominions are very considerable. In Europe the Turks are possessed of Romania, Bulgaria, Servia, Bosnia, Ragusa, Wallachia, Moldavia, Bessarabia, Budziac, and Oczakow, Tartary, Crim and Little Tartary,

with Albania, Epirus, Macedonia, Thessaly, and all the antient Greece. Situated as they are, in the centre of the continent, they might command the trade of the whole world: but this advantage they have lost by their indolence and inactivity, and the destructive maxims of their government. The goods imported from Turkey are raw silks, carpets, goats hair, mohair yarn, goats wool, cotton wool, and yarn, dimities, burdeets, skins, cordovants, blue, red, and yellow; coffee, rhubarb, turpentine, opium gum senega, terrealennia, cluna root, and abundance of other drugs; wine, oil, figs, raisins, dates, almonds, pistachio nuts, allom, vitriol, boxwood, bees wax, saffron, &c. Constantinople is the seat of the grand seignior, who is an absolute prince.

Italy has a pure temperate and healthful air, and the soil is in general exceeding rich, but the people are so broke with slavery, and barrasted with the tyrannical oppressions, and impositions of their priests, that it is far from being sufficiently cultivated. It is in length from north west to south east, 600 miles, and upwards, but the breadth very unequal, as it is said to resemble a boot; it is described, as having the top 400 miles broad from east to west; in the calf of the leg, or middle, it is about 120, and towards the instep 80 miles broad. In the north are the duthies of Savoy, Piedmont, and Montferrat, subject to the king of Sardinia; the territory of Genoa, subject to the Genoese; the dutchies of Milan, Mantua, and the rest of Montferrat, subject to the house of Austria; the dukedom of Modena, subject to its own duke; and the large territories of Venice, subject to that republic. In the middle of Italy is the dukedom of Tuscany, subject to the duke of Lorrain; the pope's dominions, which almost surround Tuscany; and the state of Lucca. In the southern division is the kingdom of Naples, subject to the king of the two Sicilies. The people have a taste for the polite arts, and excel in architecture, statuary, music, and painting. Our trade to Italy is carried on by separate merchant's, who export broad cloths, long ells, bays, druggets, calimancoes, camblets, and other stuffs; leather, tin, lead, fish, pepper, and East India goods; for which they in return im-

port raw and wrought silk, velvets, wine, oil, soap, olives, anchovies, and drugs for dying.

Switzerland is situated in the valleys between the Alps, the highest mountains in Europe, which, though lying between 45 and 48 degrees of north latitude, are for a great part of the year covered with snow, and the air is here much sharper than in countries that ly more to the north. From these mountains the largest rivers in Italy have their source, particularly the Rhine, the Rhone, the Danube, the Rufs, and the Inn. Here are also extensive lakes, those of Constance and Geneva are each sixty miles long. The soil produces some corn and wine, but as the fruits of the earth are frequently destroyed by storms, or cold rains, they, to prevent the poor from perishing, in plentiful years lay up their corn in magazines. They breed and supply the neighbouring countries with abundance of cattle. They have some crape and linnen manufactures; but as almost all their cloathing is imported from abroad, they wisely rectify this inconvenience, by retrenching all superfluities. Switzerland is divided into three classes. Switzerland Proper, or the thirteen cantons, the subjects of Switzerland, or the conquered countries, and the allies of Switzerland, as the Grisons, the republic of Genoa, &c. Of the thirteen cantons some are protestant, and other popish cantons, but they all unite against a common enemy.

Spain enjoys a fine air, and generally a serene settled weather, except in spring and autumn; the winter is so moderate in the valleys, that for nine months in the year they have very little occasion for fires; but in June, July, and August, the heats are very troublesome. The soil produces excellent wheat and barley; they have rich pastures, and their wooll is the best in Europe; they abound in wine, oil, and silk, and in oranges, lemons, raisins, citrons, prunes, figs, capers, chesnuts, almonds, and pomegranates, they have valuable mines of copper, lead, allom and sulphur, and the iron and steel of Biscay is reckoned the best in Europe. But, notwithstanding so fine a country, and the vast treasures they have drained from their American mines, Spain is poor, and but thinly peopled: but their poverty may

be, in a great measure, ascribed to their pride and indolence. Their land is cultivated by foreigners, and they export great part of the produce of their country unwrought. Those of our merchants that trade to Spain, export broad cloaths, druggets, bays, long ells, calamancoes, and other stuffs, tin, lead, leather, fish, corn, hosiery, and haberdashery wares, and from thence import wine, oil, salt, and fruit. It is computed that from this trade England receives a greater balance than from that of any other nation, except the Portuguese.

Portugal is the most westerly kingdom in Europe, being about 300 miles long, and 100 broad; it is neither so hot nor so fruitful as Spain, and is encumbered with some of the most barren and unprofitable mountains; which, however, towards the bottom, being planted with vines, produce most excellent wine; and though the soil produces plenty of olives, as well as oranges and lemons, yet they have not corn enough for their subsistence. The foreign trade of the Portuguese consists either in the exportation of the produce of their own soil, or in the merchandize they receive from their settlements in Asia, Africa, and America. There is no country to which the English trade to greater advantage; for though we import the greatest part of their wine and fruit, they take our woollen manufactures in return. The inhabitants of Spain and Portugal are the most bigotted Papists in Europe.

A Description of ASIA.

ASIA is situated between 25 and 148 degrees of eastern longitude, and between the equator, and 72 degrees of north latitude, being bounded by the frozen ocean on the north, by the Archipelago, the Euxine sea, &c. which separates it from Europe on the north west; by the Red Sea, which separates it from Africa on the south west; by the Indian ocean on the south; and by the pacific ocean on the east.

This quarter of the world is thrown into three grand divisions, the first containing the empire of China, Chinese Tartary, and the oriental islands on the east. The second, India, Usbec Tartary, Calmuc Tartary, and Siberia in the middle. And the third containing Persia, Arabia, Astracan, Circassian Tartary, and Turkey in Asia on the west.

China, including Chinese Tartary, is divided from Siberia by the river Argun, and is 2000 miles in length from north to south, and 1000 in breadth from east to west. This vast empire is usually divided into 16 provinces, in which are computed 155 capital cities, 1312 of the second rank, and 2357 fortified towns. On the limits of China, there is a stone wall 1500 miles long, built to defend them against the incursions of the Tartars; but, notwithstanding this, about an hundred years ago they made a conquest of China. This is thought to be the most populous empire in the world. In the north and very far to the south, the air is very cold, occasioned by the height of the land. The chief produce of the country is silk, china ware, tea, gold dust, and japan work, of which England, Holland, Portugal, and France, import a great deal, sending them silver in return. Their religion is pagan, of which several sects are tolerated. Europeans complain of them as a very deceitful people.

Of all the eastern islands, those of Japan are the most famous; that called Japan, and which gives its name to all the rest, is about 600 miles long, and from 100 to 150 broad, besides which, there are several others of a considerable bigness, all subject to the emperor of Japan, who has fifty or sixty vassal princes under his dominions. The revenues of this emperor are said to be greater than those of any monarch upon earth. They trade with the Chinese, but no European nation are allowed this privilege, except the Dutch, who carry to Japan spices, sugar, silks, woollen and linen cloth; elephant's teeth, and haberdashery wares, and they receive in return gold, silver, fine copper, cabinets, and other Japan and lacquered wares.

The peninsula of India, or India Proper, is the most southern part of the second division of Asia, and is about

2000 miles from south to north, and in the broadest part 1500 from east to west. The northern part of this vast country, has a temperate, healthful climate, but in the south it is extremely hot, especially when the winds blow in April and May. They have periodical rains, which, beginning in June last till October, which is the season for planting and sowing; but they have scarce any grain besides rice, except in the north. The produce of the continent of India, and what the Europeans export from thence, are chints, calicoes, muslins, pepper, and diamonds, which most nations purchase with silver; but the Dutch frequently barter spices for them. Their religion is paganism, and they all believe in the doctrine of transmigration. They are under the government of the great Mogul, an arbitrary and despotic prince, who is the sole landlord and proprietor as well as sovereign.

India beyond the Ganges, extends near 2000 miles from north to south, but is of a very unequal breadth. It comprehends the kingdoms of Asein, Ava, Pegu, Laos, Siam, Cambodia, and Malacca; the last is in the possession of the Dutch, and the rest is governed by as many Indian princes. Great part of this country would be intolerably hot, were it not for the periodical rains, which, when the sun is vertical, overflow the country; and the breezes which come from the sea. The natives are of an olive colour, and their religion various sects of paganism. There is no country where there are such numbers of elephants. Our merchants here meet with gold and other precious stones, opium, and such other articles as are usually found between the tropics, but they have no corn except rice.

Tartary, which is the same as the ancient Scythia, comprehended all the north of Europe and Asia, of which the Russians possess the principal part, and have given it the name of Siberia; and this part of their dominions extend even to the pacific ocean, and is 2000 miles in length, and 1500 in breadth. The Tartars of Astracan, and the Calmuc Tartars, are also subject to Moscow, those of Circassia and Dagistan, sometimes put themselves under the protection of the Turks and Persians, and sometimes of the Russians. The Usbec Tartars are tributary to the sovereign of Persia. None

thern Tartary is a barren country, almost always covered with snow, in which are few houses or inhabitants. But in the south the Tartars enjoy a temperate climate, and a fruitful soil; yet they do not apply themselves to cultivate the land, but are continually moving from place to place to find pasture for their numerous flocks and herds.

Persia is the first country we shall mention in the third division of Asia. It is 1200 miles long, and almost as many broad. In the south, which lyes near the tropic of cancer, the air is so excessive hot, that for two or three months in the year it is dangerous to stir out at noon; for at that time the winds blowing over a vast tract of burning sands, are heated to such a degree as frequently to prove mortal. There is very little water, but what they have is managed with the greatest care, and conveyed through innumerable aqueducts to their towns, their fields and gardens. It is a country incumbered with barren mountains, but whose valleys are fruitful. They have a prodigious variety of the richest fruits, but scarce any corn except rice. The soil also produces abundance of medicinal drugs; and they have a fine breed of horses, but as the country is very sandy, and filled with large desarts, their camels and dromedaries are their most useful animals. One of the principal manufactures of Persia, is embroidery in gold and silver, on cloth, silk, or leather. Turkey-leather is chiefly brought from hence and carried thro' Turkey; as also those called Turkey-carpets are really made here. But the principal manufacture of the country is that of silk, which they either work up alone, or mix with cotton, camel or goats hair; their brocades, gold tissue, and gold velvet are admirably fine. They also manufacture camel hair stuffs, camblets, silk and worsted druggets. Their greatest men are merchants, but the Armenians and Indian banyans, who reside there, carry on the most distant foreign traffic. They take broad cloth from England, in exchange for their raw silk, and an act has lately passed here for carrying on the same trade through Russia. Our East India company have long traded thither by the way of Gombroon and the Persian gulph. The people are civil to strangers, but live in a

luxurious manner : their religion is that of the mahometan, and the sophy of Persia is an absolute prince.

Arabia joins on the east to Persia, and is a country of vast extent, governed by several princes, and divided into many states. The people generally live in tents, and move from place to place to find pasture and water for their cattle, great part of the country being a dry and barren desert.

Turkey, in Asia, contains Chaldea, now called Ey-raca, Arabic, Mesopotamia, now Diarbeck, part of Assyria, now called Curdistan, Armenia, now Turcomania, part of Georgia, Mingrelia, and Circassia; part of Arabia, Syria, Palestine, Natalia, or Asia Minor. Some of which are as fine and fruitful countries as any in the World.



A Description of AFRICA:

AFRICA is joined to Asia by the narrow isthmus of Suez, and situated between 37 degrees north, and 35 degrees south latitude, and between 18 west, and 51 degrees east longitude, bounded by the Mediterranean, which separates it from Europe on the north, by the isthmus of Suez, the Red Sea, and the eastern ocean, which divides it from Asia on the east; by the southern ocean on the south; and by the Atlantic ocean, which separates it from America on the west.

Africa is divided into ten divisions, Egypt, Abyssinia, or the Upper Ethiopia; the coast of Anian and Zanguebar; Monoemugi, Monomotopa, and Caffraria, or the Lower Ethiopia; Congo, Angola, and Guinea; Nigritia, or Negroland; Zaara; Biledulgerid; the antient Numidia; the empire of Morrocco; and the coast of Barbary.

Egypt is situated near the extremity of the Mediterranean, and is 600 miles in length from north to south, and from 100 to 200 in breadth from east to west. The air is here very hot and the soil extremely fertile occasioned by the overflowing of the Nile, without which, it

would be a barren waste, as it very seldom rains in this country. The lower Egypt is a triangular island, made by the Levant, and the two principal branches of the Nile. No place in the world is better furnished with corn, flesh, fish, fruits, and the most excellent garden stuff; but the people are very subject to have sore eyes. The Egyptians were the inventors of almost all arts and there are still to be seen their ancient pyramids, one of which is 700 feet high. Egypt is subject to the Grand Seignior, but his authority is extremely limited by the Egyptian princes.

Ethiopia superior, comprehending Abyssinia, Nubia, and Abex, joins to Egypt on the south. The river Nile rises from a lake almost in the middle of Abyssinia, which being swelled by the periodical rains, that fall annually between the tropicks, overflow Egypt and all the low grounds which border on that river. The country produces plenty of corn, rice, wine, sugar, flax, and all the fruits proper for the climate; but the Turks being in possession of Abex, have shut up all the avenues to this country. Camels, horses, oxen, sheep, and asses are their cattle. The Abyssines are perfectly black, but have neither flat noses nor thick lips. It was the king of this country who was called Prester John. They keep both the Christian and Jewish sabbath, and both baptize and circumcise their children, and even their female children.

The coast of Anian is a barren country, on the east of Abyssinia, subject to several African princes.

Zanguebar, is another country on the east of Asia, lying on the south of Anian, and contains the provinces of Majadoxa, Melinda, Quiloa, Mozambique and Sofala. The Portugueze have here made several settlements, and tradewith the natives for gold, slaves, ivory, ostrich feathers, wax and drugs.

Cassaria, or the country of the Hottentots, lyes in the southermost part of Africa, and almost surrounds the inland country of Monomotopa, a part very little known; the Hottentots are a savage and nasty people. In this country the Dutch have built a town and castle near the most southern promontory, called the Cape of Good Hope.

Congo and Angola lyes on the west of Caffraria. Thither the European merchants resort to purchase slaves. These countries are subject to several Negroe princes; but as the Portuguese have a great many settlements on this coast, and in the inland country, they pretend to the dominion of the whole, and that these princes are their vassals; however the trade is open to all the nations that please to traffick with the natives. The chief town on this part of the continent is St Salvador; but the capital of all the Portuguese settlements in this part of Africa, is the city of Loango, in a small island near the coast. The slaves of Angola, as they are not bred to labour, are generally agreed to be the laziest and most untractable of any of the slaves purchased on the coast.

Guinea coast has the Atlantick ocean on the south and west, and is divided into the grain coast, from its chiefly producing Guinea grain; the ivory coast, from the plenty of elephants teeth found there; the gold coast, from its furnishing most gold; and the slave coast, from its furnishing the greatest number of slaves. The English, Dutch, and French have forts and factories on this coast; for the Portuguese, after having possessed the whole for upwards of 100 years, were drove from hence by the Dutch. The princes of the inland country being almost always at war, sell their prisoners to the Europeans for slaves.

Negroland is a fruitful country, producing rice, Guinea grain, and Indian corn; also cocoa nuts, plantains, pulse palm-trees, and tropical fruits. The Europeans trade thither for slaves, gold, ivory, bees-wax, gum-senna, and other drugs.

Zaara is a barren desert country that produces scarcely any thing to sustain life; it has no towns, but the few inhabitants who know where to find springs of water, live in tents, and wander from one country to another, to find grass and water for their cattle. These people are of an olive complexion, their language is Arabic, and their religion mahometanism.

Biledulgerid lyes on the north of Zaara; it is partly subject to the Turks, and partly to the king of Morocco. The climate is very hot, but generally esteemed wholesome. The soil is but indifferent, and the

commodities are chiefly cattle, corn, dates, and indigo. The religion of the inhabitants is that of mahometanism.

Morocco has the Mediterranean sea on the north, and the Atlantic ocean on the west, and is about 500 miles long, and 200 broad. It is a fine country, consisting of mountains and fruitful plains. The soil produces corn and the richest fruits. They send several thousand camels, horses, and mules, every year to Mecca and Negroland: to Mecca they carry fine woollen goods, Morocco skins, indigo, cochineal, and ostrich feathers, bringing back silks, muslins, callicoos, coffee, and drugs. By the caravans to Negroland they send salt, silk, and woollen goods; taking gold, ivory, and negro slaves in return. The emperor is an absolute despotic tyrant, but he has no ships of war except small pyratel vessels.

Barbary, comprehending Algiers, Tunis, Tripoli, and Barca, lyes on the east of Morocco, and extends along the southern shore of the Mediterranean, as far as Egypt. The air of the country is temperate and healthful, the soil fruitful; its chief commodities are honey, wax, oil, flax, dates, almonds, hides, &c. The religion of this country, as well as Morocco, is mahometanism.



A Description of AMERICA.

America is situated between 80 degrees north, and 58 degrees south latitude, and between 35 and 145 degrees of west longitude. It is bounded on the east, west, and south by the ocean; but on the north some have imagined it joined to the other continent; whilst others, finding a great current flowing in Hudson's bay from the east, suppose that it is divided from the north by a large river, which has a communication with the ocean on the other side of the continent. Others have imagined, that the north east of Siberia joins to the N. west of the unknown continent of America, west of

Hudlon's bay ; and that thus, instead of two continents, we have but one. If this supposition be true, it will account for the peopling of a country so far distant from that part of the world in which man was originally placed.

The principal part of America is at present under the dominion of Spain, Portugal, Great-Britain, and France.

The Spanish dominions, which are by far the largest, comprehend Old and New Mexico, Florida, Terra Firma, Peru, Chili, Patagonia, Paragua, and la Plata, the country of the Amazons, and the Spanish islands, of which the most considerable are Cuba, Hispaniola, Porto Rico, and Trinidad.

The second division is subject to Portugal, and consists of the country of Brasil, extending from the river Amazon, under the equator, to the river La Plata, in 35 degrees south latitude, an extent of 3000 miles, but scarcely 200 miles broad.

The third grand division is subject to Great Britain, and lyes along the eastern coast of North America from 31 to 51 degrees of north latitude, and lying in the following order from north to south. The isle of Newfoundland, New Britain, Nova Scotia or New Scotland, New England, New York, the two Jerseys, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, and the islands of Jamaica, St Christophers, Barbadoes, &c.

The fourth division is claimed by the French, which, according to their maps, extends from the gulph of Mexico to the north of Canada: that is, from 28 to 52 degrees of north latitude, being 1500 miles from north to south, and very little less from east to west; these having the British dominions on the east, and New Mexico on the west, comprehending the greatest part of Canada and Florida, to which countries they have given the names of New France and Louisiana. The islands subject to France are those of Caen, and part of the island of Hispaniola, Martinico, Guadalupe, and several of the other Caribbee islands.

The Dutch are possessed of Surinam on the coast of Guiana, or Caribiana in South America, and others on

the north coast of Terra Firma, of which those of Carthagena, Arabia, and Bonnaire are the chief, and from hence they carry on a clandestine trade with the coasts of Spanish America.

Denmark is possessed of the island of St Thomas, one of the Caribbees.

It would take up too much room to give a particular account of all the countries on this vast continent. We shall therefore conclude our account of this part of the earth with some general observations.

America, as a continent, is divided into two parts north and south, by the Isthmus of Darien. This Isthmus is a neck of land, of about sixty miles broad, and 300 in length, and filled with high mountains, on which the snow frequently lyes, though it is only between 8 and 10 degrees of north latitude; the wind, which great part of the year blows from thence into the south sea, is cool and refreshing; while on the other side, the air of the Atlantic ocean is excessive hot. America enjoys all the advantages of the other three parts of the globe, being extremely fruitful, and having a fine air, except towards the north, where it is much colder than any part of Europe that lyes under the same latitude. The air is filled with an infinite number of birds, and the rivers with fish, and (where uncultivated) the land with trees; so that the principal difficulty in making a new settlement consists in clearing the ground. The British and French settlements chiefly produce tobacco, sugar, pepper, corn, rice, timber, iron, and from hence are imported skins, furs, fish, and some drugs. The Spanish settlements produce cochineal, and other drugs, with great quantities of gold and silver; but it is said that the gold mines of Mexico are almost exhausted. The Portuguese settlements at Brazil in South America at present produce vast quantities of gold, and diamonds. And the Dutch settlements at Surinam furnish them with tobacco and sugar.





BRITISH ISLANDS.

THE British islands, or the English dominions, ly in the western ocean, on the north of France and west of Denmark, Germany and the Low Countries. Situated between the 8th and 20th, and 35 min. of lon. and between the 50th and 59 deg. of lat. Under this name are comprehended four distinct parts, besides the lesser isles, viz. 1. England, 2. Wales, 3. Scotland, and, 4. Ireland.

I. ENGLAND.

The kingdom of England lyes on the south of Scotland, and north of France, from which it is divided by the channel, of a triangular form, incompass'd on three sides with sea. In length from north to south, about 360 miles, and in breadth from east to west about 300, containing about 27 millions of acres.

The inhabitants are mostly of the reformed religion, taught here in its purity (the divisions I forbear to mention) some few are Papists; their language is a branch of the Teutonick, chiefly compos'd of old Saxon, Latin and French. Their chief commodities are corn, cattle, tin, copper, lead, iron, timber, coals, abundance of wool, stuffs, linnen, hides, tallow, butter, cheese, beer, &c. It is divided into six circuits, viz.

1. Northern circuit, 2. Midland circuit, 3. Oxford circuit, 4. Norfolk circuit, 5. Home circuit, 6. Western circuit.

Rivers of principal note are four, viz. 1. Thames, 2. Severn, 3. Trent, and, 4. Tweed.

Mountains of greatest account are three, viz. Inglesborough, 2. Pendle, and, 3. Pennegent.

Arabbishopricks 2. Bishopricks 20. Universities 2.

An Account of the several Counties of *England* and *Wales*, with their Produce, Market-Towns, and Market-Days.

Note, m stands for Monday, tu for Tuesday, w for Wednesday for Thursday, f for Friday, and s for Saturday.

Bedfordshire.

A N inland county, in Lincoln diocese, 73 miles in circumference, is a fruitful country, well stored with corn and cattle, especially in the north parts. It produces barley and wheat as good, if not the best in England.

Market-Towns.

Bedford, the shire town, Tuesday and Saturday.

Dunstable w	Shefford f
Woburn f	Biggleswade tu
Amptill th	Potters f
Leighton tu	Tuddington f
Luton m	

Berkshire.

An inland county in the diocese of Salisbury, and a pleasant country, 20 miles round, where the air is good and the soil fruitful. It yields plenty of corn, cattle, wild fowl, wool, and wood, especially oak.

Market-Towns.

Reading, the shire town, Saturday.

Abingdon m and f	Newbury th
Windsor f	Faringdon tu
Wallingford tu and f	Wantage f
Maidenhead w	East-Isley w
Hungerford w	Oakingham tu

Buckinghamshire or Bucks.

Another inland county in Lincoln diocese, 138 miles in circuit, is very plentiful both in corn and pasture, particularly the famous Vale of Aylesbury, which feeds an infinite number of sheep, yielding excellent wool. The Tame, Ouse, and Coin are its principal rivers.

Market-Towns.

Buckingham, *the chief*, Saturday.

<i>Aylesbury</i> f	<i>Beaconsfield</i> th
<i>High Wickham</i> f	<i>Chejham</i> w
<i>Colebrook</i> w	<i>Rusborough</i> f
<i>Stoney Stratford</i> f	<i>Amersham</i> tu
<i>Ousney</i> m	<i>Newport Pagnel</i> f
<i>Marlow</i> f	<i>Isingo</i> f
<i>Wendover</i> th	<i>Winslow</i> th

Cambridgeshire.

An inland county, in the diocese of Ely, 130 miles in circumference, abounds in corn and pasture, fish, wild-fowl and saffron. 'Tis true, the north part of it called the Isle of Ely is full of marshes, and subject to small inundations; which makes it unhealthful, and yield but little corn; but this defect is richly supplied with plenty of cattle, fish, and wild-fowl. Cambridge is remarkable for a famous university, containing 12 colleges and 4 halls, and are as followeth.

<i>Peter House,</i>	} Founded in	1284. by Hugh de Balsbam, bishop of Ely.
<i>Corpus Christi, or Bennet col.</i>		1346. by Henry of Monmouth, duke of Lancaster.
<i>Convile and Caius</i>		1348. and so named from its founders.
<i>King's college</i>		1441. by King Henry VI.
<i>Queen's college</i>		1448. by Margaret, wife to Henry VI.
<i>Jesus college</i>		1497. by L. L. D. Bp. of Ely.
		Z 3

<i>Christ's college</i>	Founded in	1506. by <i>Margaret countess of Richmond, mother of H. VII</i>
<i>St John's college</i>		1506. by the same.
<i>Magdalene col.</i>		1542. by <i>E. Stafford, the last D. of Buckingham of that name</i>
<i>Trinity college</i>		1546. by <i>King Henry VIII.</i>
<i>Emanuel college</i>		1584. by <i>Sir Walter Mildman, chancellor of the exchequer.</i>
<i>Sidney Sussex col.</i>		1598. by <i>Frances Sidney, countess of Sussex.</i>

HALLS.

<i>Clare hall</i>	Founded in	1343. by <i>Richard Badew.</i>
<i>Pembroke hall</i>		1347. by <i>Mary de St. Paul, countess of Pembroke.</i>
<i>Trinity hall</i>		1353. by <i>William Bateman bp. of Norwich.</i>
<i>Katherine hall</i>		1459. by <i>Robert Wood, chancellor of the university.</i>

Market-Towns.

<i>Cambridge, the chief, Sat.</i>	
<i>Ely f</i>	<i>Marche f</i>
<i>Caton to</i>	<i>Roxton w</i>
<i>Newmarket to</i>	<i>Whitch f</i>
<i>Linton th</i>	<i>Soham f</i>

Cheshire, or County of Chester.

A maritime county in the diocese of Chester, 112 miles round. It yields more pasture than corn, and is for the most part level: its greatest hills being those that part it from Stafford and Derbyshire. There are in it several forests, particularly Delamere and Macclesfield forests: and so great a number of parks, that few gentlemen's country seats are without one.

There are also many heaths, in which both sheep and horses feed; and some mossy plots, which make good turf to burn.

Its principal rivers are the Dee, which waters the S. W. parts, the Weaver running through the middle, and the Mersey northward,

Cheese and salt are the chief product of this county, and both in great request all over England.

Market-Towns.

Chester, the capital, Wednesday and Saturday.

<i>Namptwich f</i>	<i>Stockport f</i>
<i>Middlewich f</i>	<i>Sandwich th</i>
<i>Norwich f</i>	<i>Llfringham tu</i>
<i>Macclesfield m</i>	<i>Malpas m</i>
<i>Congleton f</i>	<i>Knotsford f</i>
<i>Fordesham w</i>	

Cornwall.

A maritime county in the diocese of Exeter, is the most western county of England, surrounded with the sea on the north, south and west, and parted from Devonshire, eastward by the Tamer, all but a slip of land; so that 'tis a perfect peninsula, 150 miles in circumference: but is none of the most fruitful parts of England. It is true, its valleys are full of corn and pasture, and the hills famous for their tin and copper mines; and it abounds in wild fowl, and the seas thereof in fish. It yields also plenty of samphire, eringo, fine slate and fine marble.

Market-Towns.

Launceston, the chief, Saturday.

<i>Leikard f</i>	<i>Truro w and f</i>	<i>Helfon f</i>
<i>Lestwithiel f</i>	<i>Bodmin f</i>	<i>Saltash tu</i>
<i>Catchelford f</i>	<i>Foway f</i>	<i>St. Columb th</i>
<i>Weston, w</i>	<i>Kellington w</i>	<i>Market-Jew th</i>
<i>Port Pigham f</i>	<i>St. German f</i>	<i>Padstow f</i>
<i>Grampound f</i>	<i>Newport f</i>	<i>Penzance th</i>
<i>Faflow f</i>	<i>Tregony f</i>	<i>Falmouth th</i>
<i>Penryn w, f, & f</i>	<i>St. Ives w and f</i>	<i>Stratton tu</i>

Cumberland.

A maritime county in the north of England, and in the diocese of Chester and Carlisle, is bounded northward with Scotland, and westward with the Irish sea, and is 168 miles round. It yields plenty of corn, pasture, wild fowl, fish, coal pits, and mines of copper and lead.

Market-Towns.

Carlisle, the chief, Saturday.

<i>Cockermouth tu</i>	<i>Aiston-Moor f</i>
<i>Whitehaven th</i>	<i>Ireby th</i>
<i>Keswick f</i>	<i>Kirk Ofwald th</i>
<i>Penrith tu</i>	<i>Longtown th</i>
<i>Brampton tu</i>	<i>Ravenglass f</i>
<i>Holm f</i>	<i>Wigton tu</i>
<i>Egerment f</i>	

Derbyshire.

An inland county northward in the diocese of Litchfield and Coventry, 130 miles in circuit, is a plentiful county of pasture, corn and wood. Here are also quarries of free stone, marble, mill, lime, whet stones, coal, lead and iron mines, crystal and alabaster.

The river Darwent, which glides through this county from north to south, and falls into the Trent, divides it into two parts, east and west.

Market-Towns.

Derby, the shire town, Friday.

<i>Chesterfield f</i>	<i>Ashbourn f</i>
<i>Worksworth tu</i>	<i>Blackwell m</i>
<i>Balsover f</i>	<i>Dronfield th</i>
<i>Aj'retan m</i>	<i>Tiddleswall w</i>

Devonshire.

A maritime country in the diocese of Exeter, 200 miles in circumference. It lyes in the west of England, bor-

ders upon Cornwall, and is watered on two sides with the sea, viz. north and south. The air is very good, and the soil for the most part fruitful; but there are both hills and woods. This county abounds chiefly in corn, pasture, wool, wild fowl and sea fish. There are also tin and lead mines. Its chief manufactures are kerseys, serges and lace.

Market-Towns.

Exeter, the chief, Wed. and Sat.

<i>Barnstaple f</i>	<i>Topsham f</i>	<i>Dodbrood w</i>
<i>Dartmouth f</i>	<i>Axminster f</i>	<i>Hartland f</i>
<i>Honiton f</i>	<i>Autrey tu</i>	<i>Hatherly tu</i>
<i>Oakhampton f</i>	<i>Bampton f</i>	<i>Holdsworthly f</i>
<i>Plimpton f</i>	<i>Bow f</i>	<i>Kingsbridge f</i>
<i>Tavistock f</i>	<i>Chimleigh th</i>	<i>Kilton th</i>
<i>Tiverton tu</i>	<i>Cudleigh f</i>	<i>Modbury th</i>
<i>Plymouth m & th</i>	<i>Columpton f</i>	<i>Moreton f</i>
<i>Totness f</i>	<i>Com Martin f</i>	<i>Newton th</i>
<i>Abbotston f</i>	<i>Culliton th</i>	
<i>Biddisford tu</i>	<i>Torrington f</i>	

Dorsetshire.

A maritime county upon the Channel, lyes east of Devonshire, in the diocese of Bristol, 150 miles in compass. It is a pleasant and fruitful county, yielding plenty of corn, cattle, pasture, wild fowl and fish; also abundance of hemp, and quarries of free stone and marble.

Market-Towns.

Dorchester, the capital, Sat.

<i>Weymouth tu & f</i>	<i>Wareham f</i>	<i>Cerne w</i>
<i>Malcomb Regis</i>	<i>Corfe Castle th</i>	<i>Frampton th</i>
<i>tu and f</i>	<i>Grainborn w</i>	<i>Sherborn tu & f</i>
<i>Bridport f</i>	<i>Blandford f</i>	<i>Milton m</i>
<i>Bere w</i>	<i>Sturminster th</i>	<i>Winbourn f</i>
<i>Pool m and th</i>	<i>Abbotsbury th</i>	<i>Statbridge f</i>
<i>Skatesbury f</i>		

Durham.

A maritime, northern county, commonly named the Bishoprick of Durham, 107 miles in circuit. The air is sharp, and the soil not very fruitful. The east side is the best, the south full of marshes, and the west full of rocks. The greatest advantage of this county consists in coal, iron and lead mines.

Market-Towns.

Durham, the capital, Sat.

Aukland th
Stockton f
Sunderland f
Darlington m

Hartlepool m
Stainthorp tu
Barnard Castle w

Essex.

A maritime county in the east part of England, and the diocese of London, called Essex from the East-Saxons, by whom it was inhabited. It is about 146 miles in compass. Here the air is temperate, but near the sea and Thames very moist and aguish. The soil yields plenty of corn, cattle, and wool. Here is also abundance of fish and wild fowl. In the north parts saffron grows to admiration. And there are some parts, the soil of which is so rank, that after three crops of saffron, it yields good barley for near 20 years together, without compost.

This county is watered by a great number of rivers, besides the Thames that parts it from Kent, the Stour from Suffolk, the Lea from Middlesex, and the little Stour from Hertfordshire; here's the Coln, Chelmer, Crouch, Roding, and many other rivers, all yielding plenty and variety of fish.

Market-Towns.

Colchester, the county town, Sat.

Harwich tu
Barking f
Malden f

Hatfield f
Witham tu
Chelmsford f

Rumford w
Ingershoe w
Walden f

<i>Billericay tu</i>	<i>Burntwood th</i>	<i>Dunmore f</i>
<i>Cogeshall f</i>	<i>Graves th</i>	<i>Halfstead f</i>
<i>Horndon f</i>	<i>Raleigh f</i>	<i>Waltham Abbey tu</i>
<i>Manningtree tu</i>	<i>Thaxted f</i>	<i>Sudbury f</i>
<i>Epping th and f</i>	<i>Braintree w</i>	

Glocestershire.

An inland county in the diocese of Gloucester, 138 miles round, is a fine, fruitful and delightful country. The hills on the east side, called Cotswold, are covered with flocks of sheep, whose wool is called the finest in Britain. The middle parts are level, and watered by the Severn, which contributes much to their fertility. Westward is the antient forest of Dean formerly 20 miles long: but now much less; the iron mines having consumed a great part of it.

Besides the Severn, which crosses this county from north to south, here is the Avon that parts it from Somersetshire, the Wye that partly divides it from Monmouthshire, besides the Stroud and the Isis; all very fishy rivers; the Severn yielding great plenty of salmon.

Formerly the vales of this county were full of vineyards, which have been since turned into orchards, yielding plenty of apples for cyder.

In short, this county abounds in corn, wool, wood, iron, cyder and salmon. Among its manufactures, the woollen is most considerable. Here is also made great quantity of good cheese.

Market-Towns.

<i>Glocester, the shire town, Wed. and Sat.</i>		
<i>Cirnecester m</i>	<i>Fairford th</i>	<i>Northleech w</i>
<i>and f</i>	<i>Tewksbury f</i>	<i>Blackley w</i>
<i>Dursley th</i>	<i>Carmen w</i>	<i>Newnham f</i>
<i>Stroud f</i>	<i>Cheltenham f</i>	<i>Letchlade tu</i>
<i>Newent f</i>	<i>Sudbury th</i>	<i>Painswick tu</i>
<i>Stow th</i>	<i>Tedbury w</i>	<i>Wickware m</i>
<i>Thornbury f</i>	<i>Winchcomb f</i>	<i>Wotton f</i>
<i>Marshfield tu</i>	<i>Morton f</i>	<i>Dean m</i>

Hampshire, Hants, or Southampton.

This is a maritime county, on St. George's Channel, between Suffex East and Dorset West, in the diocese of Winchester 100 miles in circuit. It is a pleasant and fruitful county, yielding plenty of corn, grafs, wool, wood and iron; and particularly noted for the excellency of its honey and bacon.

On the west side it is watered by the Avon and Stour, which meet near the sea; and on the east by the Test and the Itchin, that join near Southampton.

Market-Towns

Southampton, the shire town, Tu. and Fr.

Winchester w and f

Portsmouth h and f

Andover f

Lisington f

Petersfield f

Stockbridge th

Whitechurch f

Newport w and f

Alton f

Farnham th

Basingstoke w

Kingsclear tu

Ringwood w

Odiham f

Rumsey l

Waltham tu

Alestone th

Hartfordshire.

An inland county, in the diocese of London and Lincoln, 130 miles round, is a fine delightful place; and has more gentlemen's parks than any other county. Here the inhabitants breathe a wholesome air, and the soil yields plenty of corn, grafs and wood. The Lea and Coln are its principal rivers; wheat, barley, and malt, its chief commodities, and, with Bedfordshire, the best in Great Britain. The plowmen and farmers are outdone by none.

Market-Towns.

Hartford, is the county town, Saturday.

St Albans f

Barnet m

Ware tu

Barkhamstead m

Rickmansworth f

Hatfield th

Buntingford m

Standon f

Baldock th

Hitchin tu

Heddon th

Stevenage f

Thring f

Watford tu

Hempstead th

Herefordshire.

An inland county in Hereford diocese, towards Wales, in circuit 120 miles. abounds in all things necessary for life, particularly corn, wool, salmon and cyder. Its wool and cyder are counted the best in Great Britain; and yet their cyder is made of the red-streak apple, scarce eatable, but growing no where so well as in this county.

Market-Towns.

Hereford, is the capital, Wed. Frid. Sat.

Lampeter f

Weobly th

Kington w

Raſt th

Pembridge tu

Ledbury tu

Bromyard m

Huntingdonshire.

An inland county in the diocese of Lincoln, by some nick named Willowshire, for its plenty of willow, is 67 miles round, was formerly a very woody county, and consequently most proper for hunting, whence the name of Huntingdonshire. Now it is open and marshy on the N. E. but plentiful of pasture. In general it is a pleasant country, diversified with hills, and yielding plenty of corn and cattle. Its principal river is the Ouse; now made navigable, whose beautiful meadows, with such multitudes of cattle upon them, are well worth seeing.

Market-Towns.

Huntingdon, the chief, Saturday.

St Ives m

Kimbleson f

St Neots th

Ramsay w

Tasley tu

Kent.

A maritime county, at the east part of the channel, in the diocese of Canterbury and Rochester, is 160 miles in compass. According to the different nature of its soil, 'tis divided into three parts, viz. the Downs, which have health without wealth; the Marshy Parts, that have wealth without health; and the Middle that has health and wealth. One part of this county is wood, another corn, and the third pasture. Its soil yields plenty of wheat in some places, in some barley, and others excellent cherries and pippins.

Market-Towns.

Canterbury (*famous for its cathedral*) is the capital, Wednesday and Saturday.

Rochester f

Maidstone th

Dover w and f

Sandwich w and f

Romney th

Smarden f

Hithe f

Bromley th

Wye th

Cranbrook f

Gray w

Dartford f

Eltham m

Faversham w & f

Folkestone th

Gravesend w & f

Lenham tu

Lidde th

Sevenoak f

Tenterden f

Malling f

Milton f

Tonbridge f

Westram w

Woolwich f

Wrotham tu

Ashford f

Sussex.

A maritime county upon the Channel, with Kent on the E. and Hampshire W. in Chichester diocese, is 158 miles round. Its Downs, near the sea, are charming, and its vallies (called the wild of Sussex) very plentiful, of oats especially. The forests are barren, but the E.

parts yield abundance of iron, which has occasioned a vast consumption of wood. Here the roads are so deep in winter, that in some places, coaches must be drawn with oxen. This county is well watered, but with rivers of no long course. Arun is the principal. A Sussex carp, an Arundel mullet, an Amerly trout, and a Chichester lobster, are much admitted. And so is the White-ear, a bird as good as a French Ortolan. Its principal manufactures are iron, guns and glass.

Market-Towns.

<i>Chichester, is the chief, Wednesd. and Sat.</i>	
<i>East Grinstead th</i>	<i>Petworth w</i>
<i>Hastings w and f</i>	<i>Steyning w</i>
<i>Rye w and f</i>	<i>Battle th</i>
<i>Arundel w and f</i>	<i>Hailsham f</i>
<i>Horsham f</i>	<i>Bright-Hemston tu</i>
<i>Midhurst th</i>	<i>Cuckfield f</i>
<i>Lewes f</i>	

Lancashire.

A maritime county in the diocese of Chester, bounded with the Irish sea, is 170 miles in circuit; of all maritime counties the least subject to fogs, and the inhabitants generally strong bodied. The soil is partly upon the level, yielding good wheat and barley, and the bottom of the hills excellent oats. But the hilly parts eastward are generally stony and barren.

Market-Towns.

<i>Lancaster, is the county-town, Saturday:</i>		
<i>Clithero f</i>	<i>Blackbourn m</i>	<i>Hastlingdon w</i>
<i>Liverpool f</i>	<i>Cartmel m</i>	<i>Garstang th</i>
<i>Preston w, f, & f</i>	<i>Coln w</i>	<i>Kirkham tu</i>
<i>Wigan m and f</i>	<i>Bury th</i>	<i>Hornby m</i>
<i>Manchester f</i>	<i>Charnley</i>	<i>Howstead m</i>
<i>Warrington w</i>	<i>Dalton f</i>	<i>Grmskirk tu</i>
<i>Ulverston th</i>	<i>Roachdale tu</i>	<i>Poulton m</i>
<i>Bolton m</i>	<i>Hawkshead m</i>	<i>Perfect tu</i>

Leicestershire.

An inland county, in the diocese of Lincoln, is 96 miles in circuit, enjoys a good air, and abounds in corn and pasture, and is particularly famous for pease and beans. Pasture land is so good, that here are many farms let between 500 and 2000*l.* a year. The sheep and horses which are sent in such numbers to London, are undoubtedly the largest in England. It yields plenty of coal. Its principal rivers are the Stour, Reek, and Swift,

Market-Towns.

Leicester is the county town, Saturday.

Ashby de la zouch f

Basworth w

Harborough tu

Hallaton th

Hinkley m

Balsdon f

Lutterworth th

Longborough th

Milton tu

Mountsorrel m

Waltham w and th

Lincolnshire.

A maritime county, in the diocese of Lincoln, bounded east with the German sea, is 180 miles in circuit. The north and west parts are the most fruitful; the east and south marshy, yet abound in fish and wild fowl.

Market-Towns.

Lincoln is the capital, Saturday.

Boston w and f

Grantham f

Stamford m and f

Grimsby w

Gainsborough tu

Bullingbrook tu

Spalding tu

Stanton m

Burgh th

Binbrook w

Alford tu

Burton m

Barton m

Kirton th

Bourn f

Tattershall f

Wainfleet f

Dunnington f

Falkingham th

Hopbeck th

Horncliffe f

Louth w and f

Sleaford m

Spilsby m

Salisbury m

Middlesex.

An inland county, in the diocese of London, the metropolis of Great Britain, is 81 miles in circumference. It has a sweet wholesome air, and fertile soil, much improved by the compost (or dung) of London. The Thames that waters it, and separates it from Surrey, is the principal river.

Market-Towns.

L O N D O N, the metropolis, *both markets for every day in the week.*

<i>Westminster, m, w and f</i>		<i>Uxbridge th</i>
<i>Brentford th</i>		<i>Enfield f</i>
<i>Stains f</i>		<i>Edgworth th</i>

Monmouthshire.

A county in the diocese of Landaff, formerly Welch, but now reckoned among the counties of England. It lyes westward on the borders of Wales, watered on the south by the Severn, which falls there into the sea. It is 80 miles in circuit; woody and hilly, but very plentiful; to which the rivers Usk and Wye, Monnow and Rumney, contribute very much. The Usk and Wye yield plenty of salmon and trout.

Market-Towns.

Monmouth, *the principal, Saturday.*

<i>Abergavenny tu</i>		<i>Chepstow f</i>		<i>Pontpool f</i>
<i>Gaerleon tu</i>		<i>Newport f</i>		<i>Usk m and f</i>

Norfolk.

A maritime county, in Norwich diocese, bounded on the north and east with the German sea, is 140 miles in circumference. The soil is in some places fat, in some sandy, and in others heavy. Towards the sea 'tis level, and yields plenty of corn. In other parts you have woods and heaths. Those feed abundance of catile.

and these infinite numbers of sheep and rabbits. Its principal rivers are the Ouse, Waveney, Yare, and Thyrn: Its commodities, corn, wool, honey, and saffron, the best growing near Walsingham: its manufactures stuffs and stockings. The neighbouring sea swarms with hering. Jet and amber are sometimes found upon the coast. From Norwich to Yarmouth, about 30 miles, is all rich meadow; upon which most of the Scots runs graze, till they are fat, and then make excellent beef.

Market-Towns.

Norwich, *the capital*, Wed. Frid. and Sat.

Lynn tu and f	Downham f	Comer f
Tarmouth f	Walsingham w	Dis f
Thetford f	Windham f	Harleston w
Attleborough th	Ropeham f	Herling tu
Alesham f	Snasham f	Holt f
Buckingham f	Falkenham th	Wotton w
Burnham f	Foulsham th	Worsted f
Dearham f	Hingsham f	Seby every second m
Walsingham f	Caston tu	Swatham f

Northamptonshire.

An inland county, in Peterborough diocese, 120 miles in circuit, is one of the best counties in England, has a healthful air, rich, fruitful soil, abundance of inhabitants, and claims the honour of having more noblemens seats than any other county. It abounds in corn and cattle, wood, and salt-petre. Its principal rivers are the Ouse, the Welland, and the Nen, all rising in this county.

Market-Towns.

Northampton, *the shire town*, Saturday.

Peterborough f	Rothwell m
Brackley w	Kittering f
Daventry w	Wellingborough w
Oundle f	Trappstone tu
Towcester f	Gliff tu

Northumberland.

A maritime county, in Durham diocese, and bordering upon Scotland, is 166 miles in circumference, bounded by the sea eastward, and on the west, by the impassable mountains of Stainmore. It has a keen piercing air; is not the most fruitful, but some parts of it are very good, especially towards the sea. Here are several lead and coal mines; a multitude of monumental antiquities with wild fowl and fish in abundance.

Market-Towns

Newcastle, *the chief town*, Saturday.

Berwick f

Hexham tu

Alnwick f

Wooler th

Morpeth w

Belford tu

Rothbury th

Warkworth th

Nottinghamshire.

An inland county in the diocese of York, 90 miles in circuit, has a whollome air, and different sorts of soil; for the southeast parts are fertile, the western woody, and yield abundance of pit coal, Here is the famous forest of Sherwood. The Trent and the Eddle are its prime rivers. The first parts this county from Lincolnshire.

Market-Towns.

Nottingham, *the county town*, Wed. Fr. and Sat.

Newark w

Bingham th

Redford w

Worsnop w

Mansfield th

Tuxford in the

Southwel. f

Clay m

Oxfordshire.

An inland county, in Oxford diocese, 130 miles round, has a sweet healthful air, a good soil for corn and fruit, and rich in pasture. Besides the Thames, composed of

Tame and Isis, that water this county, here is the Chervel, Windrush, Evenlode, &c. Oxford is remarkable for a famous university, containing 20 colleges, and 5 halls, which are as follows.

<i>University col.</i>	Founded in	872. by the Saxon King Alfred.
<i>Baliol</i>		1262. by John Baliol, King of Scotland.
<i>Merton</i>		1274. by Walter de Merton, Bp. of Rochester.
<i>Exeter</i>		1316. by Walter Stapleton, Bp. of Exeter.
<i>Oriel</i>		1325. by King Edward II.
<i>Queen's</i>		1340. by Robert Eglesford, B D.
<i>New</i>		1375. by William of Wickham, Bp. of Winchester.
<i>Lincoln</i>		1427. by Richard Fleeming and Thomas Rotheram, Bps. of Lincoln.
<i>All Souls</i>		1437. by Henry Chichley, Archbp. of Canterbury.
<i>Magdalen</i>		1459. by William of Wainfleet, Bp. of Winchester.
<i>Brazen-Nose</i>		1511. by William Smith, Bp. of Lincoln, and Sir Richard Sutton, Knt.
<i>Corpus-Christi</i>		1516. by Richard Fox, Bp. of Winchester.
<i>Christ-Church</i>		1549. by King Henry VIII.
<i>Trinity</i>		1555. by Sir Thomas Pope.
<i>St. John's</i>		1557. by Sir Thomas White, Lord Mayor of London.
<i>Jesus</i>		1571. by Queen Elizabeth.
<i>Wadham</i>		1609. by Nicholas Wadham, Esq;
<i>Pembroke</i>		1620. by Thomas Tefdale, Esq; and Richard Whitchurch, B D.
<i>Worcester</i>		1700. by Sir Thomas Cooke.
<i>Hartford</i>		1743. by Dr. Newton.

HALLS.

St. Edmond's	} belonging to	Queen's	} Colleges
St. Alban's		Merton	
St. Mary's		Oriel	
New-Inn		New	
Magdalen		Magdalen	

Market-Towns.

Oxford, the capital city, Wed. and Sat.
 Woodstock tu. | Whitney th. | Bicester Fri.
 Banbury tu. | Watlington f. | Bampton w.
 Burford f. | Chipping Norton f. | Tame tu.
 Henley th. | Deadington f. | Charlbury f.

Rutland.

An inland county, in Peterborough diocese, 40 miles in circuit. It yields plenty of corn and cattle, and feeds great numbers of sheep; the wool whereof (like the soil) is reddish: from whence this county is called Rutland, that is Red-land. Here is also plenty of wood, and several rivers; the principal of which are the Welland and Wash.

Market-Towns

Oakhampton f. | Upington w.

Shropshire.

An inland county, in the diocese of Hereford and Lichfield, bordering upon Wales, is 135 miles in compass. Here the inhabitants breathe a good air, and have the benefit of a fruitful soil, though hilly on the south and west. It yields plenty of wheat and barley, pit coal, wood, and Iron. The rivers are the Roden, Teme, and Severn; which last runs through the county.

Market-Towns.

Shrewsbury, the county town, Wed. Th. Sat		
Bishopscastle f	Blismere tu	Wen th
Bridgnorth f	Whitchurch f	Church-stretton tu
Ludlow m	Newport f	Oswestry m
Wenlock m	Drayton w	Shipton tu

Somersetshire.

A maritime county in the west of England, and diocese of Bath and Wells, 240 miles round, is one of the largest counties; plentiful of corn and pasture, most pleasant in the summer, tho' but indifferent for travellers in the winter. Whence the proverb, Bad for the rider, but good for the abider. Beside the Severn, which runs into the Sea, there is the Avon, Frome, Parret, Tor, and Tone. The oxen in this county are as large as those in Lincolnshire, and the meat much preferable. This county yields also lead and copper, lapis calaminaris, chrysol that comes near a diamond, and wood for dyers. Its chief manufactures are woollen cloth and serges. At Cheddar they make the best and the biggest cheeses in England, as good as the Parmesans. The whole milk of the parish goes for the making of it, by agreement among the parishoners.

Market-Towns.

Bristol, the capital, Wed. and Sat.		
Bath w and f	Axbridge th	Ranasham th
Wells w and f	Shepton-mallet f	Crookhorn f
Bridgwater th	Somerton m	Dulverton f
Uchesser w	Wellington tu	Glastenbury tu
Taunton w and f	Bruton f	Chard m
Wincanton w	Ilminster f	Longport f
Watchet f	Dunstar f	Pontford tu
South-paterton th	Wivelcomb tu	Writon tu

Staffordshire.

An inland county, in the diocese of Litchfield and Coventry, 141 miles in circumference; the air is sharp and

healthful, the soil diverse : for northward 'tis hilly and barren; southward it yields plenty of corn and grass, iron and pit coal. The inland parts are level, but woody. Here is also good stone, marble, and alabaster.

Beside the Trent that waters northward, there is the Dove, Churner, Blithe, Line, Sow, and other small rivers, which make the neighbouring lands very fruitful, and the sheep that feed upon them some of the best mutton in England. Here are also some salt springs, little inferior to those in Cheshire,

Market-Towns.

Stafford the county-town, Sat:		
Lichfield tu and f	Eccleshall f	Betley tu
Newcastle m	Ridgley tu	Locke w
Burton th	Browly tu	Endbury tu
Penbridge tu	Breewood tu	Stow tu
Uttoxeter w	Walsall tu	Wolverhampton w

Suffolk.

A maritime county, south of Norfolk, and in Norwich diocese. 140 miles in compass. The air is wholesome, but the soil diverse : sandy and full of heaths towards the sea, but yielding plenty of rye, pease, and hemp, and feeding vast multitudes of sheep. Further from the sea are Woodlands, otherwise called High Suffolk, which feed abundance of cattle. But the most fruitful parts are about Edmonsbury. There are a great many parks in this county. Its principal rivers are the Stour, Breton, Deben, Orwel and Blith. Here is abundance of cheese made tolerable good, but Suffolk butter is counted excellent. Its manufactures are woollen and linnen cloth.

Market-Towns.

Ipswich, the principal, Wed. Frid. and Sat.		
Dunwich f	Stowmarket th	Lowndham tu
Orford m	Newmarket th	Mildenhall f
Albrough f	Becclens f	Biddeston w

<i>Sudbury</i> f	<i>Bury</i> w	<i>Clare</i> f
<i>Eye</i> f	<i>Hadley</i> m	<i>Bungay</i> th
<i>Dedington</i> f	<i>Framlington</i> f	<i>Holesworth</i> tu
<i>Isworth</i> f	<i>Lestoff</i> w	<i>Mendlesham</i> tu
<i>Needham</i> w	<i>Neyland</i> f	<i>Woodbride</i> w

Surrey.

An inland county, which the Thames parts from Middlesex 112 miles in circuit, in the diocese of Winchester. 'Tis observed that the skirts of this county are the most fruitful; however in point of health, the middle parts have the advantage; both for the pleasure they yield by their Downs in hunting; and horse races. Besides the Thames, here is the Wye, which runs through Guildford, the Mole through Dorking, and the Wandle, all three into the Thames, the first two near Hampton-Court, and the last near Richmond.

Market-Towns.

Guildford, the county-town, Saturday

Rigate tu

Kingston f

Southwark w and f

Croydon f

Dorking th

Farnham th

Warwickshire.

An inland county, in the diocese of Worcester, Lichfield and Coventry, is 135 miles in circuit, enjoys a good air; and plentiful soil especially on the south, northward 'tis woody. Among its rivers Avon is the chief, which runs through the midst of it, and falls at last into the Severn. Its chief commodity is cheese.

Market-Towns.

Warwick, the county-town, Saturday,

Coventry f

Birmingham tu

Nuneaton f

Stratford th

Coleshill w

Rugley f

Atherston tu

Henly m

Southam m

Alcester tu

Kineton tu

Sutton-Colefield m

Westmoreland.

Westmoreland, in the north west of England, partly in the diocese of Chester, and partly in that of Carlisle, is 120 miles in compass. It is hilly and marshy, but not without fruitful spots of ground especially southward. But in general it is certainly the most barren and wild country in England. The Eden, Ken, Lon and Eamon, are the principal rivers. Ulles water and Winander mere, are two lakes, the first bordering upon Cumberland, and the latter upon Lancashire.

Market-Towns.

Appleby, the county town, Saturday.

Kendale f

Kirkbysteven m

Longsdale th

Orton f

Burton th

Brough w

Amble side w

Wiltshire.

An inland county in Salisbury diocese, 140 miles round, is a healthful county. Northward 'tis somewhat hilly and woody; but southward 'tis pretty level. In the middle of it is Salisbury plain, noted for its large extent, and for feeding innumerable flocks of sheep. Its principal rivers are the Nis, Kennet, Avon, Willy, and Nadder. It has the chief manufacture of wool: the best broad cloths, both white and dyed, are made all over this county.

Market-Towns.

Salisbury, the capital, Wed. and Sat.

Hindon th

Crickdale f

Warminster f

Chippingham f

Devizes th

Bradford m

Wilton w

Downton f

Amsbury f

Marlborough f

Wesbury f

Anburn tu

B b

Malmsbury f	Highworth w	Swindon m
Lavington w	Caine tu	Frounbridge f
Wotton bassett th		

Worcestershire.

An inland county in the diocese of Worcester, 130 miles in compass; yields plenty of corn, pasture, cattle, fish and fruit. The vale of Evesham is noted especially for its great fertility. Here are also several salt springs. Its rivers, the Severn, Avon, Salwarp, &c.

Market-Towns.

Worcester, the capital, Wed. Frid. and Sat.

Evesham m	Kidderminster th	Tidbury tu
Bewdley f	Bromsgrove tu	Upton th
Droitwich f	Parshore tu	Shipton f
Stewerbridge f		

Yorkshire.

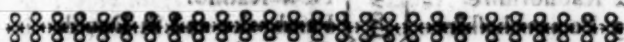
A northern maritime county, in York diocese, is 320 miles round. 'Tis divided into three parts, the N. E. and W. Ridings, which last is the largest and most populous. 'Tis generally a most fruitful country, yielding plenty of corn, cattle, fish, and wild fowl. Here are also abundance of fine horses, lime-stone, jet and allum. Sureby is noted for its goats, Sheffield for iron, Richmondshire for its lead, copper, and pit coal. Its principal rivers are the Humber, Aire, Calder, Don, Derwent, Nyd, Ouse, Swall, Youre, Warf and Tees. This county is about the size of the dukedom of Wirtemberg in Germany; and bigger than all the seven United Provinces of Holland. The manufactures here are cloths, which of late are carried on to great perfection.

Market-Towns.

York, the chief town, Tuesday and Sat.

Kingston upon	Halifax th	Pattingham f
Hull tu and f	Leeds tu and f	Hornsey f
Knaresborough w	Bradford th	Burlington f
Rippon th	Aberford w	Scarborough th

Boroughbridge	Sherburn	Thriske
Pontefract	Selby	Northallerton
Steffield	Tadcaster	Richmond
Rotherham	Wetherby	Whitby
Doncaster	Shipton	Gisborough
Tickhill	Ripley	Packer
Bawtry	Beverly	Yarm
Barnsley	Heydon	Stockley
Wakefield	Hawdon	Beddall
Huddersfield	Wigton	Massham
Snaith	Malton	



W A L E S.

The principality of Wales, lyes on the W. of England, (commonly reckoned a part thereof) bordering on the Irish sea, and parted by the river Dee, and a line drawn to the river Wye; in length from N. to S. about 124 miles, in breadth from E. to W. about 100.

It was first conquered by the Romans (about the same time that England was) and afterwards had a king of its own, and sometimes two, one of North and the other of South Wales. But at last the kings of England subdued them, and brought them to their power; so that it is at present under the kings of England, whose eldest son has the title of prince of Wales.

The inhabitants, as in the rest of England, are most Protestants, their language very harsh, being the same with the old British or Gallick, but the English is also much used among them; their chief commodities are cattle, butter, cheese, Welsh-frize, cottons, bays, beverings, hides, calveskins, honey, wax, and other such like. It is divided into two parts, which are called North Wales, the seat of the old Ordovices, since the kingdom of Gwent and part of Powysland; it contains five counties, which are now called North Wales, South Wales, Brecknock, Glamorgan, and Glamorgan.

1 Flintshire	} Chief Towns	St Asaph and Flint
2 Denbighshire		Denbigh
3 Isle of Anglesey		Beaumaris
4 Caernarvonshire		Caernarvon and Bangor
5 Merionethshire		Harlech
6 Montgomeryshire		Montgomery and Welshpool

St Asaph is the chief town of the whole.

2. South Wales, the seat of the old Dimetæ, and part of the Silures, since the kingdom of Debenbarch, and part of Powisland; it contains six counties, viz.

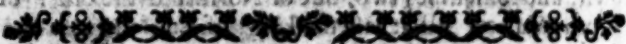
1 Cardiganshire	} Chief Towns	Cardigan
2 Radnorshire		New Radnor
3 Pembrokeshire		Pembroke and St Davida
4 Carmarthenshire		Carmarthen
5 Brecknockshire		Brecknock
6 Glamorganshire		Cardiff and Landaff

Chief town of the whole is Pembroke.

Rivers of chief note are two, Wye and Dee.

Principal mountains are those called Snowdown hills and Plinlimmon.

Archbishopricks 0, Bishopricks 4, Universities 0.



III. SCOTLAND.

The kingdom of Scotland is the rest of the island of Albion or Great Britain, and lies on the north of England, from which it is parted by the rivers Tweed and Solway, and the Cheviot hills; in length from Duncby head to the S. of Galloway 250 miles, in breadth from Aberdeen to the isle of Mull, 50 miles.

The inhabitants are most Protestants, and those chiefly Presbyterians; their language is in the S. parts a corrupt English, and on the N. and W. parts a dialect of the Irish; their chief commodities are most sorts of fish in great abundance, much linnen-cloth and tallow, vast

numbers of cattle and hides; as also excellent honey, lead ore, iron, train oil, coarse cloths, frizes, &c.

It is divided into two { S. the Firth } { Edinburgh }
 classes, viz. { N. the Firth } { Aberdeen }

South comprehends	{ Galloway ———	Chief Towns	{ Kirkcudbright ———	} W to E
	{ Nithsdale ———		{ Dumfries ———	
	{ Annandale ———		{ Annand ———	
	{ Eisdale with Eusdale ———		{ ——— ———	
	{ Liddisdale ———		{ Hermitage ———	} E to W
	{ Tiviotdale ———		{ Jedburgh ———	
	{ The Mers ———		{ Duns ———	
	{ Lauderdale ———		{ Lauder ———	
	{ Tweeddale ———		{ Peebles ———	} E to W
	{ Clydisdale ———		{ Glasgow ———	
	{ Kyle ———		{ Ayr ———	
	{ Carrick ———		{ Bargenny ———	
	{ Lothian ———		{ Edinburgh ———	} E to W
	{ Stirling ———		{ Idem ———	
	{ Renfrew ———		{ Idem ———	
	{ Cunningham ———		{ Irvine ———	
North comprehends	{ Isles of { Bute ———	Chief Towns	{ Rothefay ———	} E to W
	{ Arran ———		{ ——— ———	
	{ Peninsula of Cantyr ———		{ Kilzeran ———	
	{ Fife ———		{ St Andrews ———	} E to W
	{ Menteith ———		{ Dumblain ———	
	{ Lennox ———		{ Dumbarton ———	
	{ Argyle ———		{ Inverary ———	
	{ Perth ———		{ Idem ———	} E to W
	{ Strathern ———		{ Abernethy ———	
	{ Broadalbine ———		{ ——— ———	
	{ Lorn ———		{ Dunstaffnage ———	
	{ Merns ———		{ Bervy ———	} E to W
	{ Angus ———		{ Dundee ———	
	{ Gaury ———		{ ——— ———	
	{ Athol ———		{ Blair ———	
	{ Mar ———		{ Aberdeen ———	} E to W
	{ Badenough ———		{ Ruthven ———	
	{ Lochaber ———		{ Inverlochy ———	

N. comprehends	Buchan	Chief Towns	Peterhead	} E to W
	Banfe		Idem	
	Murray		Elgin	
	Rofs		Tain	} S to N
	Sutherland		Dornock	
	Strathnaver		Strathy	
	Caithness		Wick, lying N E of Strathnaver.	

These are the various divisions of Scotland, according to the best maps, and the manner how they are found. But since that kingdom is ordinarily divided into sheriffdoms, stewardries, baileries, and one constabulary, we shall also consider it in that respect; and seeing each of these sheriffdoms and stewardries, &c. comprehend either a part, or one, or more of the said divisions, we shall here subjoin all the sheriffdoms and stewardries, &c. of the whole kingdom, and annex to each of them their whole content, whether more or less. Therefore,

Sheriffdoms of Scotland are those of	Edinburgh	Containing	Middle Lothian
	Berwick		Mers and bailiary of Lauder.
	Peebles		Tweedale (dale
	Selkirk		The Forrest of Ettrick
	Wigtoun		The N. and W. parts of Gal-
	Renfrew		Batony of Renfrew (loway
	Lanerick		Clydddale
	Dumbrinton		Lennox
	Bute		Isles of { Bute
	Stirling		Arran
	Linlithgow		Stirling, on both sides the river
	Clackmanan		West Lothian (Forth
	Kinross		The E. parts of Stirlingshire
	Coupar		The W. parts of Fife
	Forfar		The rest of Fife
	Kinkardine		Angus, with its pertinents
	Elgin		Merns
	Nairn		The E. parts } of Murray
	Wick		The W. parts }
	Orkney		Caithness
			Isles of { Orkney
			Zetland

Sheriffdoms of Scotland are those of

Aberdeen cont.	Mar, with its pertinents Buchan Strathbogie	
Perth cont.	Perth Athol Gawry Broadalbine Menteith Strathern	As also Glenishee Strathandel Ramach Balwidder Glenurquhy Stormont
Inverara cont.	Argyl Lorn Cantyr	
	Isles W. of	Lorn Cantyr
Bamfe cont.	Bamfe Strathdoveren Boyn Enzy Strathawn Balveny	
Inverness cont.	Badenough Lochaber The S. parts of Ross Part of Murray beyond Nairn	
Tayne cont.	Sutherland Strathnaver	
Roxburgh cont.	Tiviotdale Liddisdale Efsdale with Eufdale	
Ayre cont.	Kyle Carrick Cunningham	
Dumfries Cromarty	cont. { All Nithsdale A little of Ross, S of Cromarty	

Besides those sheriffdoms, there are { Stewardries
Bailiaries
One Constabulary

Stewardries are { Strathern
Menteith
Annandale
Kirkcudbright } Cont. { Strathern
Menteith
Annandale
E. and S. parts of
Galloway

As also { St Andrews
Killenmuire
Abernethy } in { Fife
Angus
Perth

Bailiaries are { Kyle
Carrick
Cunningham
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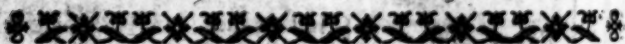
The one constabulary is that of Haddington, containing East Lothian.

Principal rivers are two, Tay and Spey.

Mountains of greatest note, are the Cheviot hills, and those of Albany

Chief lakes are Lomond, Ness, and Tay.

Archbishopricks 2, Bishopricks 12, Universities 4.



IV. I R E L A N D.

The kingdom of Ireland, an island lying on the W. of England and Wales; in length from the N. parts of Antrim, to the S. parts of Cork, 285 miles; in breadth from the E. parts of Down, to the W. parts of Mayo, 160 miles.

The inhabitants are both Protestants and Papists; their language, a dialect of the old British, intermixed with Norwigan, Danish, and English; the English is

also frequently used among them, and in some places a mongrel speech between both; their chief commodities are cattle, tallow, butter, cheese, honey, wax, salt hemp, linnen cloth, pipe staves, wool, frizes, &c. It is divided into four provinces, which are,

1. Ulster. 2. Connaught. 3. Leinster. 4. Munster, or Mounster.

Rivers of note are Shanon, Barrow, Shur, and Blackwater.

Chief mountains are Knock Patrick, Slew Bloemy, and Curlew hills.

Lakes of greatest note are Lough Earn, Lough Neagh and Lough Corrib.

Archbishopricks 4. Bishopricks 18. University 1.

Lesser British Islands are,

1. The Orcaides, or Orkney islands, on the north of Scotland. The number of them is indeed very great, 26 of them are inhabited, and the rest called Holms, are used only for pasturage. Most of them are blest with a very pure and healthful air to breathe in, but their soil is very different, being in some extremely dry and sandy, in others wet and marshy; however they are indifferently fruitful in oats and barley; the chief of them are Hoy, Mainland, Sapinsha, and Westra; the chief town is Kirkwall in Mainland. These islands have been visited by the Picts, and subject to the Danes; but Christian IV. of Denmark, having quitted all his pretensions to them in favour of James IV. of Scotland, they have ever since acknowledged allegiance to the Scots crown.

2. Zetland. Under this name are comprehended 46 islands, with 40 Holms, besides many rocks. Of these islands; about 26 are inhabited, the rest being used for feeding cattle. The chief of them are Mainland and Yell; the chief town is Ylesburg in Mainland.

3. The Hebrides. They surpass 300 in number, the most remarkable of which are Jona and St Kilda.

4. Man, on the W. of England.

5. Wight, on the S. of England, &c.

Of the Management of HORSES.

THE necessity every traveller lies under of having some knowledge of the art of managing his horse, and the many inconveniences frequently attending the want of this knowledge, are so evident that nothing need be said to evince the usefulness of this article: I shall therefore without any farther preamble, give a few hints to assist my readers in buying such horses as are fit for the road, and then treat of their management under the accidents and disorders to which they are liable.

As to the first part of this task, it is the more necessary, since whoever would buy a good horse, must know how to chuse him himself, and never place the least confidence in the words of a jockey or dealer in horses.

Rules for buying Horses.

IF a horse is young, his tusks will be sharp-pointed and grooved, or hollowed on the inside: but the jockies have the art of burning the corner teeth of an old horse, after they have been cut with a graver, by which means they imitate the mark, and frequently deceive: yet the cheat is discoverable by other signs: as, when he hath white eyebrows, he may be supposed to be about 15 or 16 years of age: the age of a horse may also be known by the length and yellowness of his teeth, the leanness of the roof of his mouth, and the narrowness of the under jaw.

But it is not sufficient that you are not deceived in buying an old horse for a young one, the eye is carefully to be examined, lest you should buy a horse that

is blind, or that has some defect in his sight. The best eye is of a hazel colour, and it is an advantage to have it rather large than small; the part commonly called the sight of the eye, should be perfectly bright and clear, without the least dimness, so that you may see the bottom, and the image of your face, reflected from thence and not from the surface; and you should also observe, if upon changing the situation of the horse with respect to the light, you can discern the sight of the eye contract or dilate itself. This, added to the clear transparency already mentioned, is a proof of the goodness of the eye.

But to proceed. Every man who buys a horse, should chuse one whose size and strength are in proportion to the weight he is to carry: but in general, a middle siz'd horse is best for the road, and one of 14 hands and an inch is of sufficient strength to carry any man under 15 stone.

After the jockey has exercised his horse before you, you should ride him yourself two or three miles on a rough, uneven road, when you should give him his head without forcing him by whip or spur to perform with more life and spirit than he is otherwise inclinable; if he walks, trots and canters nimbly, without dwelling upon the ground, taking up his fore feet moderately high, stepping longer or shorter, according as he finds there is occasion, and going near before and wide behind, he is likely to carry his master well. But it must be remarked, that the best proof of the excellency of a road horse is his trotting down hill, where it is pretty steep; for if he is able to perform this well, he is able to trot on any ground whatsoever.

Captain Bordon, in his Pocket Farrier, advises those that want to buy, to observe that the horse's knees are not broken. This is a very good caution, and it is what all people are, or ought to be aware of; yet one who is no common stumbler may have an accidental fall, you should observe whether the knees are covered with hard scars, which if they be, and the hair is curled about them, it is a certain proof of his being an old offender.

If a horse goes clean, it is a pretty sure sign that he

moves well upon his limbs; therefore when you see a person alight at an inn, with his boots tolerably free from dirt, you may almost venture to buy his horse without seeing him exercised.

The horse that has his breast full and prominent is very unfit for travelling; therefore, before you buy a horse, stand in a right line with his head, and mind that his breast don't keep his knees too far asunder, for the nearer he stands with his knees, provided he does not cut, the more reason have you to judge that he will travel expeditiously, therefore take particular notice that his breast be narrow, thin, and lean, his shoulder-points not projecting forwards, and his fore legs straight and almost perpendicular.

To conclude this article, there is scarce a better property in a horse than a sound, tough hoof, that will abide hard roads without much heating. A foundered hoof is very often long and deep, and shaped more like that of an ass than of a horse; but the good hoof is semicircular, and rather flat than otherwise.

Rules for travelling, with Directions for preventing and curing the Disorders Horses are incident to on the Road.

When you set out on a journey, observe whether the shoes be fast, whether they sit easy, or whether they do not cut either before or behind. If a horse cuts with bad thin shoes, he will probably do it when he is fresh shod; but this may sometimes be helped by a good smith.

Most of the disorders to which horses are subject, are produced by the negligence or ignorance of the rider: and as they may be easily prevented by a proper care, they are cured without difficulty, if taken in time. It is true it is much more easy to prevent diseases than to cure them; for if a horse be well curried, brushed and wiped down with a cloth, morning, noon and night, and duly exercised and well fed, he will be seldom out of order.

The advantage of currying and rubbing down is inconceivable; it promotes a due circulation of the blood, opens the pores, and consequently prevents a stagnation of the fluids, promotes perspiration, and is the readiest way of preserving health.

The most common causes of grease and scratches, are the carelessness, the nastiness and indolence of the groom; for unless the blood is kept in a balsamic state by proper exercise, clean, sweet and liberal feeding, that fluid, from which all the humours in an animal body are derived, must consequently become depraved. As exercise ventilates the blood, so, keeping the skin clean and smooth occasions an easy perspiration thro' the pores: for if after hard riding we suffer our horses to lye with the sweat drying upon them, we run the risk of a violent surfeit, which is in fact the cause of most of the distempers incident to either human or brute creatures.

As we have mentioned liberal feeding, it may not be improper before we proceed farther to mention what quantity of oats, &c. a man should allow his horse on the road.

A full-sized horse that has a good appetite, and travels hard, may be allowed every day about six quarts of oats, half a pint of split beans, and a good handful of wheat mixed together.

What is here said with respect to the quantity of oats necessary for a sized horse, may be a sufficient guide as to what should be allowed those of fourteen hands or under; therefore I shall only add, that he who will not allow his horse the quantity of oats, &c. here mentioned, should ride slowly and make short stages.

As we have been just mentioning the quantity of corn necessary to be given to a horse on a journey, I shall give the young traveller some hints relating to his watering his horse on the road, and then proceed to give directions for the cure of those disorders which are occasioned by the want of following these rules.

When a horse travels he perspires very much, and may therefore be allowed to drink a little now and then, as opportunity offers, and this will greatly refresh him; but you should never let him drink much at a time, for

if you suffer him to drink his fill, he will become dull and sluggish; and besides, if he be very hot, it may be attended with very bad consequences. However, when you come within a mile and a half, or two miles of the place you intend to bait at, either at noon or night, he may drink more freely, going a moderate trot afterwards, for by this means the water will be well warmed in his belly, and he will go in cool. Yet, carefully observe, that if there has been no water, or he has not drank on the road, never suffer your horse to be led to water, or to have his heels washed immediately after you arrive at your inn; but let him have water luke-warm after he has stood some time in the stable; for much mischief has been frequently done by imprudent riders, who after having travelled hard have let their horses drink as much as they would, just after going into the inn or town where they intended to lie.

These observations relating to currying, feeding and watering your horse, if carefully observed, will be of great service, and contribute more than any thing else to preserve him in perfect health.

How to save a Horse's Back from galling.

Young horses that have not been used to have their backs pressed, are most subject to gall and warble, and therefore we cannot take too much pains in fixing the saddle and suiting it to the shape of the back, that it may bear as equally as possible upon all parts at the same time.

As soon as an inflammation is found to be coming on, which may be known by some places under the saddle sweating, or continuing moist longer than others, especially if the back be viewed some hours after the saddle has been taken off, these places should be eased by removing the stuffing, that the weight of the rider may press upon other parts that are not so much heated. Vinegar, urine, salt and water, &c. are frequently used to cool a horse's back that has been hurt by being overheated; but if the skin be broke in holes, it would be better to use equal quantities of spirit of wine and tincture of myrrh and aloes, with a little oil of turpentine,

and bathe the place with it now and then. There will be small holes in these tumours (which are called warbles) before some people would imagine it; but if you use the said tincture, you may proceed on your journey; you ought however to look frequently at your horse's back, and not hang upon him so as to make the inflammation spread. It would also hasten the cure if you would every hour walk a while on foot, and bathe the horse's back with vinegar, or any thing else that is an enemy to putrefaction.

On the Navel Gall.

THE swelling called the Navel-gall is a tumour on the vertebrae, or bones of the back, and is occasioned by a contusion of the saddle-tree, which for want of stuffing the pannel, it has rubbed and fridged the horse's back. To prevent this, you should frequently, when riding, put your fingers before and behind your saddle, to feel whether it pinches the horse, that you may remedy this disorder in time, by getting your saddle chamber'd, or hollowed, to prevent its pressing the grieved part. But when, thro' the negligence of the rider, the horse happens to be crushed either before or behind the saddle, and that it swells much, you should, (as in all other tumours occasioned by bruises) endeavour to disperse it, by applying warm, greasy poultices, as scalded bran and hog's-lard, boiled turnips, or the like. Tho' if the bruise be slight, it may yield to cold applications, as whites of eggs, wheat flower, bole armoniac and vinegar laid thick upon a piece of leather, larger than the swelling, and renewed as it dries; but if the hurt be very slight, the humour may be dispersed by washing the place with vinegar, or salt and water.

How to cure a Crush on the Navel-Gall.

A Crush on the navel-gall frequently becomes what is termed an encysted tumour; the matter that forms it is contained in a strong skin or bag; and this

kind of swelling frequently remains for years after the hurt is received, unless they are carefully cut out by the farrier. The method of cure is to make a long incision, and to cut out the bag of matter, skin and all, and then to heal the wound with the following ointment.

The common Wound Ointment.

Take common turpentine, half a pound; honey, one pound and a half; Burgundy pitch, twelve oz. and hog's lard, half a pound; melt these well together; and when it has been taken awhile from the fire, stir in an ounce of French verdigrease in fine powder, and keep stirring till it is as thick as honey, or, till the powder cannot sink to the bottom.

Of Swelled Legs.

SWell'd legs in horses is one of their most common grievances, and it must be acknowledged that some are by far more apt to swell in the legs than others; but when a horse's legs swell and will not yield to good keeping, clean dressing, &c. without the help of medicines, the case is bad; but the following purge may be of service.

Take one ounce of common aloes, half an ounce of diapente, three drams of species hiera-picæ, one dram of diagridium, 100 drops of oil of aniseed, and as much treacle as will make it into a stiff ball, to be rolled in liquorice powder or flower of brimstone, and given the horse in the common way, working it off with warm water and oatmeal, when the medicine begins to operate.

The above dose, with respect to the quantity of the aloes and diagridium, may be enlarged or diminished according to the horse's age and strength; but it is not safe to increase the diagridium above the quantity of two drams: but a horse that is lean and weak should only be once or twice purged with the following preparation,

and afterwards he should take strengthening medicines to restore his fibres to their natural tone and elasticity.

Take of succotrine aloes, one ounce and half; extract of cassia, one ounce; of senega in powder, three drams; cinnamon, cloves, nutmegs, and galengal root, powdered, of each two drams; mix, and with as much syrup of roses-solutive as is necessary, beat the whole into a stiff mass, to be formed into two balls, which are to be given the horse in a morning, washing him down with a little warm ale, keeping him from his meat at least half a day.

If your horse is strong and full of flesh, and really requires purging, he may in such case bear the common dose: but it is a necessary caution, that when the first dose does not purge, a second should not be immediately given; for by this management many horses have lost their lives: and it is a general rule, always to keep under the common dose of any medicine, till we are thoroughly acquainted with the temperament and constitution of the creature we have to deal with.

Of the Scratches.

THE scratches are a painful distemper, and in many respects are agreeable to what is termed kibed heels in human bodies; and this generally proceeds from the carelessness and nastiness of the groom; so the grease is mostly occasioned by his negligence, in suffering the scratches to grow to too great a height. Yet, according to Dr. Bracken, the scratches differ from the grease, in that the first require rest, a large stall, and a proper ointment, whereas the grease (without the scratches) is better after moderating riding. Experience informs us, that motion prevents the closing of all kinds of wounds; and it is equally certain that an horizontal posture of the body or limb wounded, is greatly preferable to a depending one; for these reasons, a sore on the back part of the fetlock, the part where the grease and scratches happen, requires care and patience. For this reason, if a horse who has the grease or scratches, or wounds or swellings in the legs, will not lye down, he must ei-

ther be forced to it, or covered with a cloth and turned out in the day; for when a horse is turned out from a warm stable into a field, the coolness of the air causes such a contraction of the fibres and the muscular parts as puts a stop to the influx of the humours, by which means an inflammation and stagnation of the blood and juices are prevented; but before he is turned out, his heels ought to be well washed with warm water, and anointed with the following ointment.

An Ointment for the Scratches.

Take of white ointment, two ounces: Flanders oil of bays and quicksilver, each half an ounce; melt the white ointment a little, then stir in the oil of bays, and then stir in the quicksilver, and keep stirring till all be so cold that the last ingredient cannot sink to the bottom.

N. B. *Before this ointment is applied, the hair should be clipped away from the sores, the legs washed perfectly clean with pretty warm water, and the part well dried.*

Dr. Bracken asserts, that inward medicines are not absolutely necessary in the cure of the scratches or grease, and assures us, that he durst undertake to cure these disorders sooner by turning out, good feeding, clean dressing, and letting the horse have a double stall in which he may lye at his ease, than by any other method whatsoever.

Of Gravel in the Hoof.

IF a smith drives a nail into the quick, it naturally becomes festered and inflamed, and the sand or gravel in the roads working up the nail hole, render him perfectly lame: and it is a general rule, that whenever any foreign matter happens to be lodged in any part of the animal machine, it should be taken out as soon and as carefully as possible. The greatest care should be taken not to cut, pare, or scrape the hoof more than is necessary, it being sufficient to cut away what is black

and discoloured, and then to dress the wound with the following balsam.

Vervain's famous Balsam for curing Wounds or Pricks

Take balsam of Peru, half an ounce; gum Benjamin, half an ounce; storax, three drams; succotrine aloes, three drams; choice myrrh, six drams; powder them; and after putting them into a wide mouthed pint gooseberry bottle, pour upon them one pint of rectified spirit of wine, and corking it loosely, set the bottle in sand in an iron pot over a middling fire, keeping the spirit pretty warm for 24 hours; after which you may keep it close stopped, and decant it off clear as you want it.

The method of applying this excellent composition, is, to dip into it a piece of lint or tow, and then fasten it on the part, cleared of the gravel, &c. and renew it as it grows dry. But if this cannot be easily procured, the part may be dressed with the following ointment.

An Ointment for a gravelled Horse.

Take of turpentine, two ounces; rosin and Burgundy pitch, of each an ounce; bees wax, one ounce and a half; fresh butter four ounces; French verdigrease finely powdered, half an ounce; clarify the butter, and after melting the hardest substances first, put in the other, and last of all the powdered verdigrease; and stir the whole about till it is almost cold, otherwise the ointment will be more sharp at the bottom than at the top.

On a Clap in the Back-Sinew.

A Clap, or more properly a strain in the back-sinew, is frequently occasioned by a horse's getting his foot into a hole in the road, when having a heavy load on his back he often catches himself so hastily upon stumbling, that he strains the back sinew or tendon behind his fore leg. This disorder is frequently mista-

ken by the farriers for a shoulder slip: but, captain Burdon gives a very good rule to distinguish the difference. If the back sinew be split, says he, the horse will lift his toe off the ground and step short; but if the shoulder, he will drag his toe as he walks.

The cure of a strain in the back sinew is best accomplished by cooling applications, and will be much sooner effected if your horse will lye down and ease his leg. When the disorder is but slight, this alone will be sufficient.

A Cure for a Clap or Strain in the Back Sinew.

Take four ounces of bole armoniac, and ten whites of eggs; stir these well, and add thereto as much strong red or white wine vinegar as will reduce it to the consistence of a pretty stiff poultice; and then after the leg has been well bathed and washed with warm water, and wiped dry with an easy hand, spread the preparation on thin leather all along the sinew and part affected. This must be repeated as it dries.

Sir William Parsons's Receipt for the Cure of a Strain, either of the Back-Sinew or the Shoulder.

Take common Barbadoes aloes, dissolved in as much hot water as will make it of the consistence of a plaister; when spread on a piece of thin leather apply it to the part affected, and bind it easily on.

A Receipt for a Shoulder-Slip.

Take oil of turpentine, two ounces; oil of swallows and petroleum, of each half an ounce; mix these together, and having heated the shoulder and opened the pores of the skin, by holding a flat iron pretty hot, at about a span distance, let it be well rubbed in.

Strains frequently happen on a journey, without any sensible heat or swelling, so that the part affected is frequently mistaken by the farriers; but in all cases of strains, it is absolutely necessary to suffer the horse ci-

ther to rest intirely, or to make small and easy stages; for where accidents of this kind happen, nothing can be worse than motion. The common practice of rowelling for strains, according to Dr. Bracken, is of no real service; since, tho' the lameness goes off after rowelling, it is not the number of rowels, but the rest from business, and the length of time, that perform the cure.

Of Strains in the Fillets.

WHEN a horse has a strain in the fillets, it may be known by his dragging his hinder feet after him, his hitting his toes on the ground, and his wriggling as if he would fall. The age of the horse and the violence of the strain will render the cure the longer in performing.

A Receipt for a Strain in the Fillets.

Melt some pitch, rosin and turpentine together, and pour it all over the fillets pretty warm, and then clap over it a parcel of tow.

For Strains in the Fetlock.

Take the lees of wine, either red or white, or wine vinegar to the quantity of about half a pint, and add thereto one pound of common bole armoniac in powder; to these put the whites of six eggs; beat all well together, and apply it thick in the manner of a poultice, and renew it as it dries. If the powder be too much or too little for the wine lees, it may be altered so as to make it of the consistence of thick honey.

Of Windgalls.

THE cure of windgalls chiefly consists in cooling the parts, and suffering the horse to lye idle rather at grass than in the house. The above charge for strains in the fetlock, may be of great service. Or, the fetlock joints may be rubbed now and then with tar.

Of Colds.

Colds generally proceed from giving cold water to horses, when hot, or in letting them cool too suddenly; and many horses have become phthisicky, and even broken-winded, by being rid, when in a sweat, billy deep into cold water. Colds generally affect those parts of the body which are most susceptible of impression, as the brain, lungs, and guts of animals; for when that matter which ought to be perspired, is retained in the blood, by the closing of the pores of the skin, nature endeavours to throw off what is hurtful, by other outlets, such as the nose, mouth, fundament, urine, &c. and therefore it is the business of the physician and the farrier to assist nature in promoting some of these discharges. And therefore when a cold is violent, as an overgreat fullness is brought on from the perspirable matter lodged in the veins being obstructed, bleeding must be highly proper. But there is nothing better for a horse that has got a cold, than the following cordial ball.

A cordial Ball for Colds, proper to prevent or cure most Diseases in Horses, when there are no Symptoms of a Fever.

Take aniseed and caraway seed, finely powdered, of each one ounce; greater cardamum seed, half an ounce; flower of brimstone, two ounces; turmeric, in fine powder, one ounce; saffron, two drams; sugarcandy, four ounces; Spanish liquorish dissolved in hyssop water, two ounces; oil of aniseed, half an ounce; liquorish powder, one ounce and half; wheat flower, as much as is sufficient to make all into a stiff paste; and when the whole has been well beaten in a mortar, it may be tied up in a bladder, and kept for use.

This ball, when used for a cold, must be dissolved in stale beer, milk-warm, and about one ounce for a dose, given twice a day, for the space of a fortnight; or else,

instead of dissolving it, it may be put between his grinders, when you should let him chew upon it for an hour or two without eating hay or grass, and afterwards give him oatmeal and water lukewarm, stirring them gently about both before and after watering.

If a horse seems gripped in the guts from the same cause, let him have the following warm drink given him.

A cordial Drink in a Cold.

Take two ounces of the above ball, half an ounce of grains of paradise, in powder, and a quarter of an ounce of long pepper, with a large nutmeg grated, and mix all up with a quart of strong, mellow ale, and give it the horse in a horn, and then keep him tied up from food for two hours; but first, he must be rid about a little, on a full trot, to shake his guts, and let loose the imprisoned wind.

If the horse is bound in his body, about twelve hours after his taking the above cordial drink, you may give him the following clyster.

A Clyster for Gripping in the Guts.

Take mellow leaves and pellitory of the wall (either green or dried) of each three handfulls, caraway seeds bruised, and aniseeds, of each one ounce, ground ginger, half an ounce, the electuary called caryocostinum, one ounce; boil the herbs and seeds well in two quarts of water, to three pints, then add the ginger and the electuary, and put a quarter of a pound of fresh butter, and one ounce of Epsom salt to the whole. Let this be injected very warm, and the horse's tail tied down between his thighs for a good while.

In case the guts are actuated with painful twitches and convulsive contractions, which makes the horse tumble about and strike his feet against his belly, to the above clyster may be added, half an ounce of philonium romanum.

These remedies, together with care and patience, warm mashes of malt, bran, and the like, will restore your horse to health; but observe that he ought to have a wide stall, and clean, warm bedding.

Another excellent Receipt for the Cure of the Gripes.

Take twenty grains of London laudanum, dissolve it in a ounce of brandy, then mix it with a pint of white wine, and add two ounces of diascordium; give it your horse in a horn milk warm, and cloath him well. Let him rest twenty four hours after it, and drink plentifully of warm water and oatmeal, for he will be very thirsty the day after he has taken it.

On Scouring or immoderate Purging.

Scouring or purging on the road may be remedied by keeping the horse to dry food and less water than common; but this must be continued for a long time with proper exercise, and a full allowance of oats and split beats.

A horse of a lax constitution being taken from grass to go a long journey, should have the following preventive physic given him in his provender.

A Powder against Scouring or over Purging.

Take galls, powdered (such as we make ink with) two ounces, and of the powders of Japan earth and Lemnian earth, of each one ounce; mix, and keep them in a bladder for use. The method of using it is to sprinkle a little water upon the horses oats, and after rubbing them a while to throw amongst them half a spoonful of the powder.

If a horse, from foul feeding, catching cold, &c. purges upon the road, give him the following drink.

A Drink for a Horse which scours from foul Feeding, &c.

Take one ounce of Venice treacle, boil it in a quart of stale beer till a third is evaporated, then add half oz. of true Armenian bole in powder, and two ounces of common treacle to make it palatable; then give it the horse in one dose, and repeat it as necessity requires. If it be too weak to overcome the distemper, a hundred drops of liquid laudanum, and half a gill of strong cinnamon water may be added; but in the last case he should not travel for some days.

On a Cold in the Head.

When the brain is much loaded from a cold, take some of the following powder, and blow it through a piece of elder wood, pretty high up the nostrils.

A Powder to make a Horse's Nose run in a Cold.

Take Asarabacca *, dried, half an ounce, and of the powder of margerum, one ounce, mix these together, and blow it up the horse's nostrils twice or three times a day, keeping his head and throat well covered, to prevent his getting more cold.

As the eyes are subject to various accidents on the road, particularly from the cut of a whip, a remedy for these disorders cannot be unnecessary. All wounds on the eye, if curable, will yield to the following application.

A Receipt for curing Wounds on the Eyes.

Take half an ounce of the greyish coloured lapis ca-

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* This is an herb shaped like the garden scurvy-grass, only it is larger, and of a darker green.

laminaris, finely powdered, of lapis tutia, two drams, of white vitriol, burnt, one dram and a half, and about one scruple of French verdigrease, reduce these into a fine powder, and mix them well with about one ounce of fresh butter. When you make use of it, warm this ointment, dip a feather in it, and apply it morning and evening to the sore. This must be continued for a good space of time, because wounds on the eyes are long in healing.

Or when a horse's eye happens to be hurt with a lash of a whip or twig, you may blow in the following powder night and morning.

For a hurt on the Eye.

Take of lapis calaminaris and lapis tutia, finely powdered, of each two drams, white vitriol and allum, first powdered and then burnt together in a very clean, red-hot fire shovel, each half an ounce, mix all these together, and keep the whole in a bottle well corked; but observe, that the bottle ought not only to be dry, but well warmed before you put it in.

If the eyes be rheumy and bloodshot, and the horse has symptoms of pain in his head, bleeding will be necessary, and the following eye water may be applied.

An excellent Eye-Water.

Take four ounces of rose water, and about three drams of the aforesaid eye powder mixed and dissolved in it; squirt it into the eyes by the help of a syringe.

The water is best for rheumy, bloodshot eyes, where there is no speck or film; and the powder where there is; but observe, the eye always looks worse while the powders are using.

A Cure for a swelled Neck.

When a horse's neck happens to swell by getting cold after bleeding, the following softening poultice is the best remedy that can be applied.

Take mallow and marsh-mallow leaves picked clean from the stalks, of each ten handfuls, white lilly roots, half a pound; lintseed and fenugreek seed, of each two ounces, ointment of marsh-mallows, six ounces, and of hog's lard, half a pound. The leaves and roots should be boiled well, and the water pressed from them; then beat them up to a pulp in a mortar, and let it stand till you have made a jelly of the seeds by bruising them well, and boiling them in a quart of water to a pint; this you must beat up with the former; and lastly add the ointment and hog's lard, and when all are mixed thoroughly, it may be kept in a large bladder or pot for use.

This is an excellent poultice for all hard swellings, either in man or beast: when applied, it should be warmed well before the fire, spread thick over a piece of flannel, applied all over the tumour, and renewed as it becomes dry.

If a swelling of a horse's neck, after bleeding, will not disperse, it should be opened when sufficiently soft, and dressed with the common wound ointment, before recommended for healing the navel-gall, and the poultice continued till the hardness is dissolved.

When a horse is under cure for these kind of swellings, it is best to give him mashes of malt, warm grains, and warm water with a good deal of oatmeal in it, and if he will eat a little hay, it should be sweet, soft, meadow hay, sprinkled with clear water; or, in summer, cut grass.

A Receipt to cure Worms.

The best remedy for the cure of worms is æthiops mineral, which ought to be thus prepared. Take four

ounces of flower of brimstone, and the like quantity of quicksilver; melt the brimstone slowly in an iron ladle, and stir in the quicksilver over a gentle heat, till it is incorporated; then take it off, and stir it till almost cold; afterwards stir them well together in an iron or stone (not a brass) mortar, till they become a black powder. Give the horse as much as will lye on a half crown piece twice a day in his corn, which must be first wetted, to make the powder stick to it. This medicine must be continued a week or longer.

A Remedy for the Gravel.

If your horse has the gravel in his kidneys, urerers or bladder, he will seem weak in the fillers, stale often and with difficulty, and but little at a time.

Take an ounce and a half of the cordial ball above mentioned; sope of tartar, one dram; of Matthews's pill, one dram; or if the horse be lusty and strong, a dram and a half; beat those well together, and with liquorish-powder make it up into two balls, and mixing it with a little stale beer and some treacle, give it for a dose out of a horn.

This medicine, if the symptoms are violent, may be repeated once in twenty four hours; and every two or three hours water luke warm should be offered him.



THE
ART of PAINTING
In OIL.

*To which is added, The whole Art of
Gilding with Gold and Silver, mixing
Water-Colour, &c.*

A Catalogue of the several Colours used
in Painting with Oil.

W H I T E S.

THE principal of all whites is *White-lead*.

Of this colour there are two sorts, the one called *Geruse*, which is the most pure and clean part, the other is called by the plain name of *White-lead*.

Besides *White-lead* and *Geruse*, there is another sort to be met with sometimes, which they call *Elaka white*.

B L A C K S.

Lam black.

Lamp, or Candle-black.

Ivory black.

Willow charcoal.

R E D S.

Vermillion is the most delicate of all light reds, being of itself a perfect scarlet colour.

Lake, especially the richest sort, is the best of all dark reds, being a most pure Crimson.

Red-lead is the lightest of all reds now in use; 'tis a sandy, harsh colour, and such an one as is not easily ground very fine, altho' you bestow much labour on it.

Spanish Brown is a dark, dull red: of a horse-flesh colour, 'tis an earth, it being dug out of the ground, but there is some of it of a very good colour, and pleasant enough to the eye, considering the deepness of its colour: it is of great use among painters, being generally used as the first or priming colour, that they lay upon any kind of work, being cheap and plentiful, and a colour that works well, if it be ground fine, as you may do with less labour than some better colours do require; the best sort is the deepest colour, and freest from stones; the other sorts are not so good to give a colour to the eye, but yet they serve as well as any others for a priming colour.

YELLOWS.

Yellow oaker, is of two sorts, one called Plain oaker, and the other Spruce oaker, the one is a much lighter colour than the other.

Pink yellow.

Orpiment is that colour which some call Yellow arsenick.

Masticote is a good light yellow for most uses, especially in making greens, of which several sorts may be framed out of this colour being mixed with blue.

GREENS.

Verdigrease is the best and most useful green of all others.

Green bice is of a sandy nature, and therefore not much used; Green verditer is also a sandy colour, neither of them bear any good body, and are seldom used but in landscapes, where variety is required.

BLUES.

Blue bice bears the best body of all bright blues used in common work, but 'tis the palest colour.

Blue verditer is a colour of no good body, but something sandy, and of no very good colour itself, being apt to turn greenish, and being mixed with a yellow makes a good green.

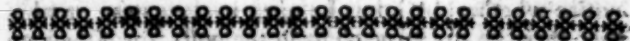
Indigo is a dark blue, if worked by itself, to remedy which, whites are usually mixt, and then it makes but a very faint blue.

Note, That the longer this colour is ground, the more beautiful and fair it looks.

Smalt is the most lovely blue of all others.

Note, That of this colour there are two sorts, the finest is that which is called Oil Smalt.

Umber is a colour that really has no affinity with the others above mentioned, being neither white, black, red, yellow, blue or green, yet it is a colour of as great use as any of the rest in common painting.



How to make a SIZE for the Gilding both with GOLD and SILVER.

THE operation is thus for the making of gold size: take yellow oaker and grind it on a stone with water till it be very fine, and afterwards lay it on a chalk stone to dry; this is the common way: or you may wash your oaker, for when it is washed, to be sure nothing but the purest of the colour will be used; and besides 'tis done with less daubing.

When your oil and oaker are thus prepared, you must grind them together, as you do other oil colours, only with fat drying oil, but 'tis something more laborious, and must be ground very fine, even as oil itself, for the finer it is the greater lustre will your gold carry that is laid on it.

Here, Note, that you must give it such quantity of your fat oil, that it may not be so weak as to run when you have laid it on; nor so stiff that it may not work well; but of such a competent body, that after it is laid on, it may settle itself smooth and glossy, which is a chief property of good size.

Silver size is made by grinding white lead with fat drying oil, some adding a little verdigrease to make it bind.

The practice of working oil-colours, and painting timber-work, after the manner of common painting,

THAT which I here call common painting, is only the way and manner of colouring all manner of wainscot, doors, windows, posts, rails, pails, gates, border-boards for gardens, or any other materials that require either beauty or preservation from the violence of rain, or injury of weather; the method of doing which, I shall lay down as plain as I can. Suppose then that there be a set of palisadoes, or a pair of gates, or some posts and rails to paint, and I would finish them in a stone colour: first look over the work, and take notice whether the joints be open in the gates, or whether there be any large clefts in the posts, for if these are not secured the wet will insinuate itself into those defects, and make the quicker dispatch in ruining the whole work; let the first business therefore be, to stop up these places smooth and even, with a putty made of whitening and linseed oil, well beaten together on the grinding-stone, with a wooden mallet, to the consistence of a very stiff dow, and with this let all the crannies, clefts, and other defects be perfectly filled up, that it may be equal to the surface of the stuff, then proceed to the priming of the work with some Spanish brown well ground and mixt very thin with linseed oil; with this do over the work, giving it as much oil as it will drink up; this in about two days will be indifferent dry, then if you would do the work substantially, do it over again with the same priming colour; when this is thorough dry, then take the white lead well ground and tempered up, nor too thin, for the stiffer you work it, the better body will be laid on, and the thicker coat of colour that your timber is covered withal, the longer 'twill last; let this colour be well rubbed on; and the whole surface of the work be so entirely covered, that there remain no creek nor corner bare, which you may easily do by jobbing in the point of a bristle brush: let this first colouring dry, and then go over it a second time, and if you please a third also: the charge will be a little more, but the advantage will be much more great.

This course is sufficient for any kind of timber work that requires only a plain colour; whether you thus cover the work with a stone colour, or else with a timber-colour in umber and white, or a lead colour in indigo and white, that with white being the cheapest of the three by much; nay, I have known some lay over their work only with a coat of Spanish brown, by tempering it up more stiff than was done for the first two primings, which in some respects is cheapest of all, and preserves the timber perhaps as well as any. Now he that is able to bring the work thus far on, has proceeded to the highest pitch of that common painting that aims at preservation beyond beauty, though something of beauty is necessarily included in this also; but this is not all, for he that is arrived thus far, is in a fair way to other perfections in the art of painting: but for the panneling of wainscot with its proper shadows, and for imitating olive and walnut-wood, marble and such like, these must be attained by ocular inspection, it being impossible to deliver the manner of the operation by precept without example, and I am bold to affirm; that a man shall gain more knowledge by one day's experience, than by a hundred spent to acquire it in some other way.

I advise therefore all those that desire any insight into this business, to be a little curious, if opportunity offers, in observing the manner of a painter's working, not only in grinding his colours, but also in laying them on, and working them in; in all these observing the motion of his hand, in managing of any kind of tool, and by this means, with a little imitation, joined to the directions here given; I doubt not but in a short time you may arrive to great proficiency in the business of common painting.

Note, That if when you have made use of your colours, there be occasion of a small cessation till the work be finished; in this case 'tis best to cover the colour in your pots with water, for that will prevent their drying, even in the hottest time.

And for your pencils, they ought, as soon as you have done working, to be well washed out in clean lintseed-oil, and then in warm soap-suds; for if either oil or

colours be once dried in the brush or pencil, 'tis spoiled for ever.

It has been observed, that timber laid over with white, when it has stood some time in the weather, the colour will crack and shrink up together, just as pitch does, if laid on any thing that stands in the sun; the cause of this is, that the colour was not laid on with a stiff body, able to bind itself on firm and fast.

If you shall at any time have occasion to use either brushes that are very small, or pencils, as in many cases there will be occasion, you ought then to dispose of the colours you use upon a pallet (*which is a wooden instrument, easy to be had at any colour-shop*) and there work and temper them about with your pencil, that the pencil may carry away the more colour; for you are to note, that if a pencil be only dipt into a pot of colour, it brings out no more with it than what hangs on the out-side, and that will work but a little way, whereas if you rub the pencil about in the colour, on the pallet, a good quantity of colour will be taken up in the body of the pencil; and besides all this, you may work your pencil better to a point on a pallet, than you can do in a pot; the point of a pencil being of greatest use in divers cases, especially in drawing of lines and all kind of flourishing.

What COLOURS are most suitable, and set off best one with another.

BY setting off best, I mean their making each other look most pleasant; for two of some particular colours put together, or one next the other, shall add much to the beauty of each other, as blue and gold, red and white, and such like: but green and black put together, look not so pleasant, neither do black and umber, or haw colour, and such like.

All yellows then set off best with blacks, with blues, and with reds.

All blues set off best with whites and yellows.

Greens set off well with blacks and whites.

Whites set off well enough with any colour.

Reds set off best with yellows, whites, and blacks.

Gold looks well upon a white ground, especially if the matter to be gilt be carved.

Gold and black shew also very well.

Gold on timber colour shews also very well.

So does gold and a horseflesh colour, made with the brightest Spanish brown.

But the most glorious ground of all others for gold are the vermillion red, the smalt blue, and the lake, laid on a light ground.

Of some Colours that arise from mixture.

Ash-colour is made of white lead and lam black; if a deep ash colour, then take the more black, but if a light one, then take but little black, and most white.

A lead colour is made of indigo and white.

A colour resembling new oaken timber, is made of umber and white lead.

A flesh-colour is compounded of lake, white lead, and a little vermillion.

A buff-colour, take yellow oaker, and white lead.

For a willow green, take verdigrease alone.

For a light willow green, take verdigrease and white.

For a grass-green, take verdigrease and pink.

A carnation is made of lake and white.

Orange-colour, yellow oaker and red-lead.

A light timber-colour, mix spruce oaker, and white, and a little umber.

Brick-colour, red-lead, a little white and yellow oaker.

For a straw-colour, take white and a little yellow oaker.

Olive wood is imitated with oaker, and a little white veined over with burnt umber.

Walnut-tree is imitated with burnt umber, and white, veined over with the same colour alone, and in the deepest places with black.

Pales and posts are sometimes laid over only with white, which they call a stone colour.

Sometimes posts and pails are laid over with indigo and white, which is called a lead colour.

Window frames are laid in white, if the building be new, but if not, then they generally are laid in lead colour, or indigo and white, and the bars with red lead.

Doors and gates, if painted in pannels, then the shadow of a white ground are umber and white, but if laid in a lead colour, then the shadows are lifted with black.

'Tis not possible to set down all those varieties of colours that may be produced by mixture; they that would see more, may peruse Dr. Salmon's polygrafice, where they shall find great variety. But those which I have here given an account of, are sufficient for common painting.

How to gild with GOLD on an oily Size, either Letters or Figures, &c,

WHatsoever you would gild must first be drawn with gold size (the making of which has been mentioned) according to the true proportion of what you would have gilt, whether figure, letter, or whatever else it be; when you have thus drawn the true proportion of what you would have gilt, let it remain till it be sufficiently dry to gild upon, which you shall know by touching it with the end of your finger; for if your finger stick a little to it, and yet the colour come not off, then it is dry enough; but if the colour come off on your finger, then it is not dry enough, and must be let alone longer; for if you should then lay your gold on, it would so drown it, that it would be worth nothing: but if your size should be so dry as not to hold your finger as it were to it, then is too dry, and the gold will not take; for which there is no remedy but new sizing; therefore you must watch the true time that it be not too wet or too dry; both extremes being not at all convenient.

When your size is ready for gilding, take your book of leaf-gold, and opening a leaf of it, take it out with your cane plyers, and lay it on your gilding cushion, and if it lie not smooth, blow on it with your breath, which

will lay it flat and plain, then with a knife of cane, or for want of it, an ordinary pocket knife, that hath a smooth and sharp edge; with this (being wiped very dry on your sleeve that the gold stick not to it) let your leaf gold be cut into such peices, or forms as your judgment shall think most fuitable to your work.

When you have thus cut your gold into convenient forms, then take your gilding pallet, ('tis a flat piece of wood, about three inches long, and an inch broad, upon which is to be glewed a piece of fine woollen cloth of the same length and breadth,) and breathe upon it to make it dampish, that the gold may stick to it; with this tool take your gold up (by clapping it down on the several peices you had before cut into forms) and transfer it to your size, upon which clap it down according to discretion, and your gold will leave your tool, and cleave to your size; which you must afterwards press down smooth with a bunch of cottog, or a hare's foot; and this you must do piece by piece till you have covered all your size with gold; and after it is fully dryed, then with your hare's foot brush off all the loose gold, so will your gilding remain fair and beautiful.

If your work to be gilt be very large, open your book of leaf-gold, and lay the leaf down on your work without cutting of it into peices, and so do leaf by leaf till you have covered quite over what you intend to gild: and if some particular places should miss there, take up with a small bunch of cotton a piece of leaf-gold, cut to a fit size, and clap it on, that the work may be entirely covered; and if the gold be to be laid in the hollows of carved work, you must take it up on the point of a camel hair pencil, and convey it in, and with the said pencil, dab it down till it lie close and smooth.

How to gild with SILVER.

IN laying on silver upon an oily size, the same method in all respects is required as for gilding with gold; save only in this, that the size upon which silver is laid, ought to be compounded of a very little yellow oaker,

and much white lead; for the size being of a light colour, the silver laid on it will look more natural, and retain its own colour better, the whiter the size is.

Note, That the common painters do now generally in gilding use more silver than gold, in most works that are not much exposed to the air, to which they afterwards give the colour of gold, by means of the lacker-varnish, whose use is now so common, that if they gild any thing that stands free from the weather, they only gild with silver, and so give it the colour of gold with a lacker-varnish, made of gum-lake, dissolved in spirit of wine and laid over it.

Some DIRECTIONS for mixing of Oil colours for divers Purposes, in the Art of colouring Prints with Oil colours.

Colours for several Faces.

FOR faces that are accounted fair, take white lead, a little vermilion and a very small touch of lake.

For the lips take more of the vermilion and lake than you did for the face.

For a brown face, take burnt oaker and white.

For a tawny moor, take cullens earth, a little burnt oaker, and a little white.

Colours for Hair.

For a brown hair, mix umber and a little black and white.

For a yellow hair, take stone oaker, white lead and a little vermilion.

For a flaxen hair, take white lead, stone oaker, and a little cullens earth.

Linnen is done with white lead or ceruse.

Silver is done with white, a little smalt, and some white masticote.

Gold is done with red orpiment and white masticote, of each an equal quantity.

Colours for Garments.

For blue garments the best smalt and white lead.

For a grays green, mix verdigrease and a little pink-yellow.

For a willow green, mix verdigrease and a very little white.

A sea green is made by mixing green-verditer, pink, and white-lead.

A French green is made by mixing pink and indigo.

A carnation by mixing lake and white lead.

A crimson is made by mixing vermillion lake and white.

A scarlet is only vermillion laid on alone.

A cherry colour is made by mixing vermillion and white-lead.

For yellow, lay on either yellow orpiment, or yellow masticote; if your yellows are more pale, then mix white with the former.

For an orange colour, mix red orpiment and a little vermillion.

For a purple, mix smalt, lake and white.

For a violet, mix bice and lake.

A straw-colour is made with white and yellow oaker, and a very little umber.

An ash-colour is made by mixing black and white.

A chefnut-colour is made by mixing umber, lake and white.

A Dove colour, or the wings of an angel, take white, a little lake, and a little smalt.

Colours for Trees.

For the bodies of trees, take pink, yellow, white-lead, yellow oaker, and a little black.

For the leaves of them that are near the eye, take verdigrease and pink, or if darker coloured, then take indigo and pink.

For leaves of trees farther off, take green verditer, pink, and white-lead.

For them that are farthest of all, take terra-verd and white.

Colours for Grounds behind a Picture.

Note. That a light hair requires a dark ground, and a dark hair a light ground.

Ground colour for a picture with a light hair is made with umber, white and black.

A ground colour for a dark hair is made with umber and white.

For Ground in a Landskip.

Take pink, oaker, and white, with a little green verditer.

For country houses at a distance, take white-lead, yellow-oaker, and smalt; the same colour serves also for houses of stone.

For brick-houses or walls, take yellow oaker burnt, and white-lead, if the work be far off, but if near, then Indian-red, and a little white.

For pails of wood or other timber work, of what kind soever, in country cottages, take umber, white, and a little oaker.

Sky-colours.

Are made of smalt and white for the highest skies, more white for the lower, and yellow mixt with a little vermilion for the lowest of all.

The whole Art and Mystery of colouring Maps, and other Prints, in Water Colours,

HAVING, as yet, seen nothing published upon this subject that is authentic, I have thought fit, for the sake of those that are inclined to ingenuity, to set forth the way and manner of doing this work, it being an excellent recreation for those gentry, and others, who delight in the knowledge of maps; which by being coloured, and the several divisions distinguished one from the other, by colours of different kinds, do give a better idea of the countries they describe, than they can possibly do uncoloured.

Now to perform this work after the best manner, there must be provided in the first place a lye made with tartar, and gum-water,

To make the tartar lye do thus, take two ounces of the best white tartar, which is a stony substance that sticks to the side of the wine vessels, and is sold by the druggists. Wrap it up hard and tight in half a sheet of brown cap paper, wet it thoroughly in water, and put it into a clear fire, either of wood or sea-coal; let it remain therein till it be red hot quite through, then take it out with a pair of tongs, and put it immediately into a pint of water, and with your fingers rub it well to pieces; put it into a long narrow glass, and in a day or two the black will all settle, and the lye will become pure clear: pour off the lye into a clean glass, and keep it close stopp'd for use.

To make gum-water, take three ounces of the whitest and clearest gum arabick, which is also sold at the druggists, and beat it as small as you can bruise it; then put it into a pint of fair spring water, and let it dissolve therein, which will be much hastened by shaking the glass three or four times a day very well, that the gum that is dissolved may mix the better with the water that is above it; and when it is all dissolved, if there appear any foulness in it, strain it through a rag into a clean earthen dish, and put it into a glass, and stop it up for use. *Note,* That too much of this ought not to be made at a time: for if the gum be kept dissolved too long in the water, it will rot, and so be of no use; therefore observe to make it fresh once in two months, or three at the farthest.

In the next place, you must prepare or make your colours ready for use, and the best for this work are those that follow; Namely,

Copper-green, and that is made thus, take a pound of right French verdigrease, made at Montpellier, this being the best, for the verdigrease made at any other place will fade. To this add three ounces of cream of tartar, beat them both into a fine powder, and take care, while the verdigrease is in the pounding, to stop your nose, and hold a bunch of fine linnen in your mouth to breath through, else the subtle powder of the verdigrease will be apt to offend; and when this is done, mix both the powders into two quarts of water, and boil it in an earthen pipkin till it boil away a quart, then strain it out.

when cold, and put the liquor into a glass, stop it up, and let it stand to settle till the liquor be very clear, so you will have a delicate green; but sometimes the verdigrease not being always of a goodness, the colour may not be deep enough for some uses. In this case, put some of it into a broad earthen dish, and set it over a chafing dish of coals, and by a gentle heat, diminish so much of the liquor, till by trying on a paper, and letting of it dry, the colour please you; and here you are to note, That if it shine too much when dry, it is not right; for it is not rightly made except it but just shine, and if you cannot make the colour deep enough by evaporating by heat, the abounding liquid, without making it shine too much, it were better to add some more verdigrease, and boil it up anew till it became a transparent deep willow green. If you would make but a pint of this, you must take but half the quantities of each; and you are also to take notice, that this is a colour that will keep many years without decaying, if the glass that contains it be close stopt up.

The next colour needful to be made, is a stone colour, or a liquor of myrrh, which is thus done; take a pint of your tartar lye, and add to it one ounce of the best myrrh in powder, which you can get at the druggists, and boil it till the myrrh is dissolved, which will be done in a small time; let it settle and pour off the clear for use, which you must keep close stopt up; this is also a tincture that will never decay, and may be made fainter or deeper by boiling more of the liquor away to make it deeper, or by adding water to it to make it fainter.

And in the last place, there is required a crimson colour which is speedily made thus. Buy at the druggists some good cochineal, about half an ounce will go a great way. Take thirty or forty grains, bruise them in a galley-pot to fine powder, then put to them as many drops of the tartar lye as will just wet it, and make it give forth its colour; and immediately add to it half a spoonful of water, or more if the colour be yet too deep, and you will have a delicate purple liquor or tincture. Then take a bit of allum, and with a knife scrape very finely a very little of it into the tincture, and this

will take away the purple colour, and make it a delicate crimson. Strain it through a fine cloth into a clean galley-pot, and use it as soon as you can, for this is a colour that always looks most noble when soon made use of; for it will decay if it stand long.

Indigo is another colour used in colouring of maps.

This is bought at the colour shops that sell paint, and it must be ground very fine on a stone, as you do oil colours; with a little tartar lye to make it give its colour, and look the brighter, when 'tis ground perfect fine like a thick syrup, add gum water to it till it be thin enough for your purpose, and keep it in a glass close stopt up, but it will settle so, that when you use it you must stir it up from the bottom.

For a yellow, gamboge is the best, it is sold at the drugists in lumps, and the way to make it fit for use, is to make a little hole with a knife in a lump, and put into the hole some water, stir it well with a pencil till the water be either a faint or a deeper yellow, as your occasion requires, then pour it into a galley-pot, and temper up more, till you have enough for your purpose.

Red lead is also a colour much used in this work, and so is orpiment; both which you may buy at the colour shops very finely ground, so that they need only to be tempered with gum water to be fit for use.

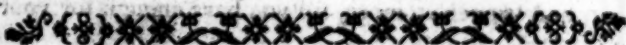
Blue bice is also used often, which needs only to be tempered with gum water, and when men design to be curious, they may use instead thereof ultramarine, which is the best and most glorious of all blues, but vastly dear; yet small papers of it about two shillings price may be bought at some colour shops, which if carefully used, will go a great way; it needs only to be tempered in a very small galley-pot with some gum water, till it lie on the paper with a good colour.

There is likewise an exceeding glorious red or crimson colour, named carmine, which is exceeding dear, yet about half a crown's worth will go a great way in the uses to which it is put; it is tempered with gum water, and gives several degrees of colour according as it is thicker or thinner tempered.

Vermillion is also used in some cases. This is a glorious scarlet, and needs only to be tempered with gum water, for it may be bought very finely ground to powder at the colour shops; only it is to be noted, that this colour shews much brighter when dry, if glazed over with some thick gum water, which is made by putting two ounces of gum arabick to half a pint of water, or less.

And for some uses, burnt umber, ground very fine with water as thick as possible, and then tempered up with gum water to a due thickness, makes a good transparent colour.

There is another colour needful in this work, which is a most pleasant grass green, and that is made thus, take a lump of gumboge, and make a hole in it, then put therein some copper green, stir it about with a pencil, and from a willow you will see it turn to a grass green, which you may make deeper or lighter as you stir it about a longer or lesser time.

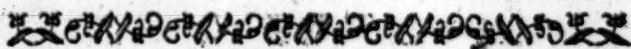


Of the Practice of Colouring Maps.

THE colours being prepared as before is directed, the only way to colour maps well, is by a pattern done by some good workman, of which the *Dutch* are esteemed the best; three or four such maps coloured by a good artist, are sufficient to guide a man in the right doing of his work; but if he cannot obtain this, he may by a few trials grow a good artist in a short time; for this is only attained to by practice, and if a man spoil half a score maps in order to get the knack of colouring a map well at last, there's no man that is ingenious will grumble at it.

The art of colouring right may be attained by practice, as was said, but the hardest thing is to know rightly how to make and prepare the colours properly, without suffering them to sink into it; all that are here mentioned will lie fair and pleasant to the eye, and it is the fairness of the colour is most esteemed in this art of map

painting; but if the paper be not good and strong, no art can make the colours lye well; therefore in buying maps, chuse those that are printed on the thickest or strongest paper.



DIRECTIONS how to lay on METZOTINTO PRINTS on GLASS.

IN undertaking this, curiously lay the prints flatways in warm water, of the thinnest and finest paper, for that which is rough and thick will not do near so well, if at all; let them soak well, and your glass being very white and thin, go over it with Venice turpentine spread thin with a pliable knife, and daub it all over with your finger, that the turpentine may seem rough.

This done, take the soaked print, and lay it on a clean cloth smooth, then press with another to take out the water, then lay it on the glass, the print next it, beginning at one end, stroaking outwards the part already fixed to the glass, that neither wind nor water may be retained between to wrinkle it; then with a bit of a sponge, or your hand, wet the backside, and lightly by degrees roll off the paper carefully, without making holes, especially in the lights, which are the tenderest, and when the print appears very plain on the backside, let it dry about two hours, then varnish it over with turpentine or mastick varnish till you can see through it, and a night's drying will prepare it to be worked on with colours.

If you would have all the paper off, so that nothing but the print may remain, lay it as before with oil of mastick, and a little turpentine, and a brush will fetch off the paper.





T H E

Exports and Imports of *G. Britain* to and from foreign Nations.

To and from CHINA, INDIA and PERSIA.

EXPORTS. Great quantities of bullion, lead, all sorts of English cloth, especially broad cloth, stuffs, callimanroes, long ells, and some other goods, which are the product or manufacture of this kingdom.

IMPORTS. China ware, tea of all sorts, cabinets, raw and wrought silks, muslins, callicoes, cotton cloths, coffee, canes, diamonds, drugs of many kinds, grocery wares of various sorts, and many other kinds of goods. Of which Mr. Gee supposes as much re-exported to foreign nations, as repays all the bullion carried to these places, and a considerable balance besides.

To and from AFRICA.

EXPORTS. Linnen and woollen manufactures, knives, scissars, small looking glasses, strong waters, pewter dishes, beads, and other toys.

IMPORTS. Gold dust, red wood, elephant teeth, Guinea grain, gum, ostrich feathers, amber, ebony, crystal, and great numbers of negroes carried to the plantations of America. From the coast of Barbary we have rice, figs, almonds, raisins, dates and copper. The great advantage of the African trade is, that it carries no money out, supplies our plantations with negroes, and brings in a great deal of bullion for negroes sold in the Spanish West Indies.

To and from the CANARY ISLANDS.

EXPORTS. Bays, kerseys, serges, Norwich stuffs, and other woollen manufactures, stockings, hats, fustians, haberdashery wares, tin, hard ware, also herrings, pilchards, salted fish, grain, linnen, pipe-staves, hoops, and some other commodities.

IMPORTS. Canary wines, logwood, hides, indigo, cochineal, and some few commodities which are the product of the West Indies.

To and from TURKEY.

EXPORTS. Broad Cloth, long ells, tin, lead, some iron, some French and Lisbon sugars, and some bullion.

IMPORTS. Raw silk, program, yarn, dying stuffs, drugs, soap, leather, cotton, oil, some fruit, as currants, raisins, vitriol, sulphur, opium, gauls balm, box-wood, mohair. The balance of this trade is thought to be in our favour.

To and from ITALY.

EXPORTS. Broad cloth, long ells, bays, druggets, callimancoes, camblets, and other stuffs, leather, tin, lead, fish, as pilchards, herrings, salmon, Newfoundland cod, ling, logwood, &c.

IMPORTS. Raw, thrown and wrought silks, wine, oil, soap, olives, some dyers wares, anchovies, brimstone, carpets, scented gloves, necklaces, and some other things. The balance of this trade is thought to be considerably against us.

To and from SPAIN.

EXPORTS. Broad cloth, druggets, callimancoes, bays, stuffs of divers kinds, leather, fish, tin, lead, linnen, corn, &c.

IMPORTS. Wine, oil, fruit of divers kinds, wool, indigo, cochineal, and dying stuffs, tent, &c. The balance is supposed but very small in our favour.

To and from PORTUGAL.

EXPORTS. Broad cloth, druggets, bays, long ells, callimancoes, perpers, fays, kerseys, flannel, and all sorts

336 *Exports and Imports of Great Britain:*

of stuffs, also tin, lead, leather, fish, corn, and other things.

IMPORTS. Wine, oil, salt and fruits, as oranges, lemons, almonds, also figs, saffron, soap, white marble, liquorish, shumack. There is a considerable balance in our favour.

To and from FRANCE.

EXPORTS. Tobacco, horn-plates, tin, some lead, some flannels, corn in time of scarcity, wool, coals and allum.

IMPORTS. Wine, brandy, linnen, fine lace, fine cambricks, cambrick lawns, brocades, velvets, salt, paper, prunes, chesnuts, &c. There is here a balance against us of no less than 500,000 per ann.

To and from FLANDERS.

EXPORTS. Serges, a few flannels, a very few stuffs, sugars, tobacco, tin and lead.

IMPORTS. Fine lace, fine cambrick and cambrick lawns, whited linnens, threads, tapes, incles, and divers other commodities, to a very great value. The balance is very much against us, being at least 250,000 l. per annum.

To and from HOLLAND.

EXPORTS. Broad cloth, druggets, long ells, stuffs of a great many sorts, leather, corn, coals, tobacco, rice, ginger, pitch, tar, with East India and Turkey Goods.

IMPORTS. Great quantities of fine holland, thread, tapes, incles, whale fins, brass battery, madder, lintseed, flax, argol, wainscot, clapboard, paper, &c. The balance is considerably for us.

To and from GERMANY.

EXPORTS. Broad cloth, druggets, long ells, stuffs, serges, tobacco, sugars, ginger, tin, lead, East India goods, and several other commodities.

IMPORTS. Prodigious quantities of linnen, linnen yarn, kidskins, tin plates, and a great many other commodities. The balance is very near as much against us in this trade, as in that of France.

To and from DENMARK, SWEDEN and NORWAY

EXPORTS. Guineas, Crown-pieces, Bullion, some Tobacco, a few coarse Woollens, Meal, Malt, Beef, Tallow, Salt, Coal, some Linnen, Lead, Butter, and Herrings.

IMPORTS. Deal Boards, Fir Timber, Spars, Plank, Iron and Copper, Wire of Iron and Copper, Tar, Wainscot, Pipe-staves, great Guns, Mortars, Bullets. We pay them a very great Balance, amounting to near 390,000*l.* per Ann.

To and from RUSSIA.

EXPORTS. Some coarse Cloth, Long Ells, Worsted Stuffs, Tin, Lead, Tobacco, and a few other Commodities.

IMPORTS. Hemp, Flax, Linnen Cloth, Linnen Yarn, Russia Leather, Iron, Furs, Pot-ashes, Timber, Train Oil, Tallow, &c. to an immense Value. The Balance is against us here 400,000 *l.* per Ann.

To and from NEW ENGLAND.

EXPORTS. All sorts of Wollen Manufactures, Linnen, Sail Cloth and Cordage for rigging their Ships, Harberdashery, Hard Ware, &c.

IMPORTS. Pitch, Tar, and Turpentine, with some Skins, Pipe-staves, Masts, Pine, Cedar, &c.

To and from NEW-JERSEY, NEW-YORK, and PENNSILVANIA.

EXPORTS. Broad Cloth, Kerseys, Druggets, Serges, and Manufactures of all Kinds.

IMPORTS. Gold and Silver, with some small Quantity of Wheat, Flax, and Hemp.

To and from VIRGINIA and MARYLAND.

EXPORTS. All manner of Clothing and Household Goods, Iron Manufactures of all Sorts, Saddles, Bridles, Brass and Copper Wares, and in short a Part of all our Manufactures.

IMPORTS. Tobacco, both for Home Consumption and Re-exportation, Tar, Pitch, Turpentine, and some Lumber.

To and from CAROLINA.

EXPORTS The same Commodities as to Virginia, viz. Cloaths, and all Sorts of Manufactures.

IMPORTS. Rice, Deer-skins, Buck-skins, Beaver, and some small Quantity of raw Silk and Tobacco.

To and from the SUGAR PLANTATIONS.

EXPORTS. Cloathing of all Kinds, both Linnen, Silk, and Wollen, wrought Iron, Brass, Copper, all Sorts of Household Furniture, and a great Part of their Food.

IMPORTS. Sugar, Ginger, Rum, Molasses, Cotton, Indigo, Cocoa Nuts, Pymento, Tamarins, Lime-juice, some Gold and Bullion from Jamaica, to the Value of 539,500 l. per Ann.; from Barbadoes, to the Value of 246,600 l. from the Leeward Islands, viz. Antigua, St. Christopher's, Nevis, Montserrat, Barbuda, Anguilla, Spanish Town, Tortolo, and the rest of the Virgin Islands, to the Value of 642,370 l.

To and from IRELAND.

EXPORTS. Beaver Skins, and Beaver Wool French Indigo; Beer, Ale, and Cyder; old and new Drapery; Salt, Pitch, and Tar; Books, Bark, Bottles; Silks, raw thrown, and manufactured; Cambrics, Hollands, Lawns, Mullins; Cotton, Silk, and Thread Stockings; Worsted and Silk ditto, and Breeches; Callicoës; Silk and Hair Shags; Silk Ribbon, Cottons, Mohair-Buttons, Fustians, Cheques, Tapets, Kentings; Gold and Silver Thread and Lace; Bone Lace, Linsey-woolseys, Camblets, Millenary Wares; Cheese, Hoops, Hops, Chalk and Whiting; Dye Stuffs, Drugs, Wrought Plate, China Ware, Earthen Ware, Hard Ware; Tin Plates, Block-Tin, Sugars, Sugar Molds, Teas, Groceries, Fruits and Spices; Turkey Coffee, Liquorice, Logwood, Cochineal, Seeds, Scythe-Stones, Tobacco, Malt, Wheat and Flour; Hats, Barley, Looking-Glass Plates, Drinking and other Glasses; Iron, Steel, Sheet Lead; White, Red, and Black ditto; Flax, and Flax Seed; Iron, and Sheet ditto; Mahogany, Hog's Bristles, Colours, Battery and Brass Shrub; Goats Hair, Spanish and English Wool, Bees Wax, Copper Plates, Pitchbl

nuts, almonds, rice, Turkey figs; wool cards, spaw water, bricks, rhenish wines; salt petre, mustard, red wood, cotton wool, buck and doe skins; pins, needles, ermins, Turkey cotton, elephants teeth, pewter, flints, toys, hats, ivory and horn combs; hollow sword blades, coals, slates, snuff.

IMPORTS. Linnens and linnen yarn; wool; wool-len and worsted yarn; copper ore, beef, butter, pork, tallow; oats and oatmeal (to North Britain) rabbits fur and skins; hides; kid, calf, goat, lamb, otter and fox skins; pelts, ox horns, glew, usquebagh, feathers, quills, sandles, soap, and some other inconsiderable articles.



A N

*Alphabetical List of English Manufactures,
with the best Markets for the Purchase
of them.*

B*ATS*, double, single and minikin, are made at Colchester, Bocking, Braintree, Witham, Cogeshall, and some other towns in Essex, and at Manchester.

Blankets. In Oxfordshire and Wales,

Brass and Copper, Cast, viz. into statues, into battery, as pots, sauce pots, kettles, &c. and afterwards hammered; black latcen for clock work, jacks, &c. Foundry ware, as cannon, mortars, apothecaries mortars, bells, pipes, wheel and mill-work, buttons, coach and upholsterers nails; wrought or hammered, clock-work, jack-work and mill-work, kitchen ware, clocks, and dials, monuments, plate brass, and toys: in and about London.

Broad Cloth, Mixed or medley cloths in Wiltshire, Somersetshire, Kent, Surry and Devonshire. Plain white cloths for dying, at Salisbury, Worcester, Cirencester, and in all parts of Gloucestershire.

Caps, high crowned, for seamen, called Monmouth caps, at Bewdly in Worcestershire.

China, at Bow in Middlesex and at Worcester.

Coarse Woollens, as rugs, chair coverings, pennillions half thick, duffles, &c. in Cumberland, Westmoreland and Lancashire.

Cottons, in Westmoreland and Lancashire.

Dozens, or narrow woollen cloth mixed, at Leeds, Wakefield, Bradford and Huthersfield in the West Riding of Yorkshire.

Druggets, in Wilts, Somersetshire and Berkshire.

Duveys, in the same places.

Flannels, Salisbury, Shrewsbury and Wrexham in Wales.

Frisés, at Worcester, and in Ireland.

Fustians, at Bolton, Manchester and parts adjacent.

Glass, fine flint, including all sorts of drinking glasses, cruets, phials, retorts, case bottles, decanters, iconces, branches, toys, watch-glasses, tubes and optic glasses, at London, Bristol, Stourbridge, Nottingham, Sheffield, Newcastle.

— Looking glasses, coach glasses and sashes, at London.

— Crown glass for windows, ordinary sashes, pictures and ordinary quarrel glass, at London, Bristol, Stourbridge and Newcastle.

Green Glass, for bottles, phials, retorts and melons, at London, Bristol, Leith, Gloucester, Stourbridge and Newcastle.

Hats, felts at Leicester and Warwick. Castors in Derby. Bevers in London.

Iron, cast into guns, shells, cylinders, cannon, small arms, bombs, hand granadoes, chimney backs, pots, waterpipes, furnaces, plates and bars, and retorts, at Coalbrookdale, Shropshire, and at Crowley's iron-manufactories in Greenwich and Newcastle.

— Forged edge tools, knives and scissars, cutlery ware and toys, nails, hinges, hooks, spikes, cocks, keys, razors, surgeons instruments, and clothiers and other sheers, London, Birmingham and Sheffield.

— Hammered, chains, anchors, crows, tires, ballistres, rails, espaliers, pallisadoes, gratings, bariron and screws, at London and Newcastle.

— Milled hoops and all split and flatted iron, springs for clocks and watches, London.

Kersey, or corse cloths, Bradford, Hallifax, Rochdale, Guildford, and the circumjacent country.

— Devonshire *Kersyes*, in Devon and Somersetshire.

Lead, Pigs and sows for exportation; sheet lead, milled or cast for covering buildings, sheathing ships, coffins, basons or fountains.

— Cast lead, for statues and pipes, bullets, small shot, moulds, letharge, calcined lead, &c. at London and Newcastle.

Linsley Woolsey, for hangings, Kidderminster and Worcester.

Long ells, or perpets, at Tiverton, Sudbury and Colchester.

Manchester ware, at Manchester.

Narrow Woollens. See dozens.

Perpets. See long ells.

Plaidings, at Coventry and in Scotland.

Sackings, at Wantage and Newbery, Berks.

Says, at Sudbury.

Serges, in Wilts, Somersetshire and Berkshire.

Shalloons. Northamptonshire, West Riding of Yorkshire, Berkshire, Somersetshire, Wiltshire, Hampshire, Carlisle, Edinburgh, Stirling and Musselburgh.

Silks of various sorts, in Spittlefields.

Stockings, woven, Nottinghamshire, Leicestershire, Derbyshire, Warwickshire and Spittlefields.

— *Knit yarn*, in Gloucestershire, Yorkshire, Worcestershire, Derbyshire, Northampton, Kendal and Aberdeen.

Stuffs, Norwich, Spittlefields, Bristol and Darlington.

Tammies, or Coventry ware, at Coventry.

Tapestry, at Fulham in Middlesex.

Tin, blocks for exporting, pewter moulds and Tolder, London.

Velvets; in Spittlefields, and a sort at Manchester.

Perhaps it may not be amiss to add, that butter in firkins is the produce of Suffolk, Yorkshire, Durham, Cumberland and Northumberland; cheese of Cheshire, Wilt-

342 *Tables of the Value of Gold Coin.*

shire, Warwickshire, Gloucestershire, and Suffolk; red herrings come from Yarmouth; Coals from Northumberland, Durham and Bristol; malt from Herefordshire, Essex, Bucks, Kent, Oxford and Berks.

A TABLE, shewing the Value of Portugal Pieces, in Pounds, Shillings, and Pence, Sterling.

Numb. of Pieces.	PORTUGAL PIECES.											
	at 3 12 0 l. s. d.			at 1 16 0 l. s. d.			at 0 18 0 l. s. d.			at 1 7 0 l. s. d.		
1	3	12	0	1	16	0	0	18	0	1	7	0
2	7	4	0	3	12	0	1	16	0	2	14	0
3	10	16	0	5	8	0	2	14	0	4	1	0
4	14	8	0	7	4	0	3	12	0	5	8	0
5	18	0	0	9	0	0	4	10	0	6	15	0
6	21	12	0	10	16	0	5	8	0	8	2	0
7	25	4	0	12	12	0	6	6	0	9	9	0
8	28	16	0	14	8	0	7	4	0	10	16	0
9	32	8	0	16	4	0	8	2	0	12	3	0
10	36	0	0	18	0	0	9	0	0	13	10	0
20	72	0	0	36	0	0	18	0	0	27	0	0
30	108	0	0	54	0	0	27	0	0	40	10	0
40	144	0	0	72	0	0	36	0	0	54	0	0
50	180	0	0	90	0	0	45	0	0	67	10	0
60	216	0	0	108	0	0	54	0	0	81	0	0
70	252	0	0	126	0	0	63	0	0	94	10	0
80	288	0	0	144	0	0	72	0	0	108	0	0
90	324	0	0	162	0	0	81	0	0	121	0	0
100	360	0	0	180	0	0	90	0	0	135	0	0

Note. The Bank of England nor Stamp-office take no pieces of gold that want above 6 grains in weight.

Tables of the Value of Gold Coin.

343

A TABLE, shewing
the Value of Pistoles
and Louis d'Ors, in
Pounds, Shillings and
Pence.

A TABLE, shewing what
each of the following Pieces
should weigh; likewise the
Value of Gold and Silver
per ounce, penny wt. &c.

Louis d'Ors, at			Pistoles at			Coins,	Value	Weight.				
l.	s.	d.	l.	s.	d.			l.	s.	d.	At 37.183 per oz. dwt. gr.	
1	4		0	16	6	A Port. Piece	3	12	0	18	11 $\frac{1}{8}$	
2	8		1	13	0	$\frac{1}{2}$ Ditto	1	16	0	9	5 $\frac{1}{2}$	
3	12		2	9	6	$\frac{1}{2}$ Ditto	0	18	0	4	14 $\frac{1}{2}$	
4	19		3	6	0	$\frac{1}{2}$ Ditto	0	9	0	2	7 $\frac{1}{8}$	
6	0		4	2	6	$\frac{1}{2}$ Ditto	0	4	6	1	3 $\frac{1}{8}$	
							A Moidore	1	7	0	6	22 $\frac{1}{8}$
7	4		4	19	0	$\frac{1}{2}$ Ditto	0	13	6	3	11	
8	8		5	15	6	$\frac{1}{2}$ Ditto	0	6	9	1	17 $\frac{1}{2}$	
9	12		6	12	0	A Guinea	1	1	0	5	9 $\frac{1}{8}$	
10	16		7	8	6	$\frac{1}{2}$ Ditto	0	10	6	2	16 $\frac{1}{2}$	
12	0		8	5	0	Lous d'ors	1	4	0	6	6	
							$\frac{1}{2}$ Ditto	0	12	0	3	3
24	0		16	10	0	Value of Gold.						
36	0		24	15	0							
48	0		33	0	0							
60	0		41	5	0							
72	0		49	10	0	1 Pound is worth	48 6 0					
							1 Ounce	4 0 0				
84	0		57	15	0	1 Pennyweight	0 4 0					
96	0		66	0	0	1 Grain	0 0 2					
108	0		74	5	0	Value of Silver.						
120	0		82	10	0							

1 Pound is worth	3 0 0
1 Ounce	0 5 0
1 Pennyweight	0 0 3
1 Grain	0 0 $\frac{1}{4}$

*A TABLE of the great Roads from EDINBURGH
to LONDON.*

Stages	Miles	Tp	Stages	Miles	
Haddington	16	16	Lintown	16	16
Dunbar	13	29	Beild	16	32
Old Cambus	12	41	Moffat	17	49
Berwick	16	57	Lockerby	15	64
Belford	16	73	Allison Bank	14	78
Alnwick	14	87	Carlisle	12	90
Morpeth	19	106	Penrith	19	109
Newcastle	14	120	Kendal	15	134
Durham	15	135	Burton	12	146
Darlington	18	153	Lancaster	11	157
North-Allerton	16	169	Garstang	9	166
Burrough Bridge *	19	188	Preston	14	180
Weatherby	12	200	Wigan	16	196
Ferry-Bridge	16	216	Newton	8	204
Doncaster	15	231	Lestock	16	220
Bawtry	18	239	Newcastle under L	21	241
Tuxford	6	255	Stone	8	249
Newark	13	268	Litchfield	27	276
Grantham	14	282	Coles-Hill	11	287
Stamford	10	302	Coventry	13	300
Stilton	24	316	Dunchurch	9	309
Bugdon	14	330	Towcester	19	328
Biggleswade	16	346	Stoney-Stratford	10	338
Stevenage	14	360	Dunstable	19	357
Hatfield	12	372	St. Albans	13	370
Barnet	19	381	Barnet	9	379
LONDON	11	392	LONDON	11	390

* York is 17 Miles off this Place and 9 Miles about, from the direct Road.

N.B. Tp stands for Turnpike, and the figures below, what is paid at each.



A N

English Spelling Dictionary.

A B R

A C C

A D M

A bandon	abridgement	accountant
abase	abroad	accountrement
abatement	abrupt	accumulation
abashment	abcess	accuracy
abate	abscond	accursed
abatement	absence	accusation
abbacy	absolve	accuser
abbess	absolute	acid
abbot	abstemiousness	acknowledgment
abbreviate	abstract	acquisition
abbreviation	abstraction	action
abbutals	abstruse	actor
abdicate	absurd	acute
abdication	abundance	adapt
abdomen	abuse	adder
abet	academy	addition
abettor	acceleration	address
abhor	accept	adequateness
abhorrence	acceptableness	adhere
abject	accessory	adjacent
abjection	accident	adieu
ability	accidentalness	adjoin
abduration	acclamation	adjournment
able	accommodate	adju-e
abnegation	accommodation	admeasurement
abroad	accompaniment	administer
abolishment	accompany	administration
abominable	accomplice	administrationship
abomination	accomplish	admirableness
abortion	accomplishment	admiralty
abound	accord	admire
abrenunciation	account	admit

A G I

A N A

A Z U

admonish

adopt

adorable

adornment

advancement

advantageous

adventitious

adventure

adventurous

adversary

advertisement

advice

adult

adulteration

advocate

advowson

affability

affair

affectation

affection

affectionate

affectionateness

affective

affiance

affidavit

affinity

affirm

affirmatively

affix

affluence

afford

afforded

affranchise

affray

affront

affusion

aforehand

aggrandize

aggravation

aggression

agile

agility

agitate

agonize

agreeableness

agreement

agriculture

agrimony

aground

alabaster

albeit

alchemist

alderman

alegar

algebra

alien

aliment

allegation

allegiance

allegorical

alleviate

alligation

alligator

allowance

almanack

Almighty

alocs

alphabetically

already

alteration

alternate

amaia

amass

amercement

amicableness

amusement

anabaptist

anagrammatist

analogy

analysis

anarchy

anathema

anatomy

ancestors

anchovy

animadversion

animalcule

anniversary

annoy

antichamber

antimonarchical

antichristianism

antipodes

apoerypha

apoplectic

apparatus

apparition

applicable

arch-deacon

arch-bishoprick

archetype

argumentation

armada

arraignment

arrogance

arrogate

arsenal

asparagus

aspiration

associate

assuage

astonish

astriction

astrologer

astronomy

atrocious

attribute

avail

avarice

auctioneer

authority

axel-tree

azure

B A R

B
 Batchelor
 backslide
 backward
 backwardness
 bagnip
 bag pipe
 bailiff
 bailiwick
 balance
 balcony
 balderdash
 baldness
 bale
 baleful
 ballad
 ballast
 ballustrade
 Bamberg
 Bampton
 Banbury
 banditti
 bandolier
 bane-berry
 baneful
 Bangor
 banker
 bankrupt
 Banstead
 Barbadian
 Barbadoes
 barbarian
 Barbary
 barbed
 barbel
 barbles
 barber
 Barbican
 Barmore
 Barmote
 Baraby

B E A

Barnesley
 Barnett
 Barnstable
 barometer
 barrack
 barricado
 barrier
 barrister
 Barsted
 barter
 Barton
 base
 bashful
 basil
 basilisk
 Basingstoke
 Bassa
 Bassaley
 basset
 bassoon
 bassirelief
 bastile
 bastinado
 bastion
 bastwick
 battoon
 battalia
 Bautre
 bawdry
 Bayborough
 baynard
 Beachley
 beaeon
 Beaconsfield
 beadle
 beadsman
 beard
 beast
 beatific
 beau
 beaver

B E V

beautifie
 beaux
 Beckernet
 Beckingham
 Beckles
 becomingness
 bedaggle
 Bedall
 bedaub
 Bedford
 Bediford
 Bedlam
 beech
 Beelzebub
 beefom
 beggary
 belabour
 beldam
 beleaguer
 Belford
 belfery
 Belgian
 Belgic
 bellow
 belswagger
 Beltingham
 belvidere
 Belvoir-castle
 bemire
 Bemister
 bergamot
 Berlin
 bespeckle
 besprinkle
 bestriden
 Bethkelet
 bethought
 Betley
 betony
 betroth
 bevel

B L E

beverage
 Beverley
 Bewdloy
 bewildered
 bewitch
 Bewmauris
 Bicester
 bidder
 bigotism
 bilander
 bilboes
 Bildeston
 bilious
 Billericay
 billet-doux
 Billingford
 Billingham
 binder
 Bingham
 biographer
 bird-call
 bird-lime
 Birmingham
 bishoprick
 bissexile
 bittern
 bitumen
 blabber
 Blackburn
 blackmoor
 blackness
 blacksmith
 bladder
 Blaize
 blameable
 Blandford
 blanket
 blaspheme
 blazon
 bleak
 bleat

B O S

Blendor, hasset
 blindfold
 blinkard
 blithe
 blockade
 blockhead
 bloodshed
 bloodshot
 blossom
 blowze
 blunder
 bluntness
 boaster
 boatswain
 bobtail
 bodice
 boggle
 boggy
 boiler
 boisterous
 boldness
 bolster
 Bolton
 bombardier
 bombast
 bombazine
 bondage
 bonfire
 bongrace
 bonnet
 booby
 bookbinder
 book-keeping
 bookseller
 book-worm
 boorish
 bopeep
 bordage
 borrower
 bosage
 Bosphorus

B U G

bosses
 Boston
 botanical
 botcher
 botchingly
 bought
 bolting-mill
 bounce
 boundary
 bounteousness
 bowelled
 bowling-green
 Bowtel
 boyish
 braggadocio
 brainless
 brand-iron
 brandish
 brandling
 brandy
 Brasil
 bravado
 brawler
 brawn
 brawniness
 breast-plate
 breeches
 breeding
 Brentford
 breviary
 brew-house
 Brickhill
 bride-groom
 Bridewell
 brigade
 brigandine
 brigantine
 Brokenhurst
 browantler
 brow-beaten
 buckskinness

BUL

buckthorn
buckweed
Bucolics
bud
Buddefdale
buddle
budge
budget
Budworth
buff
buff-coat
buffle
buffoonery
bug
Bugdon
buggerer
buggery
bugle
bugle-horn
bugloss
build
builder
building
built
bulb
bulbacency
bulbine
bubous
bulfinch
bulge
bulk
bulkiness
bulky
bull
bullace
bull-baiting
bull-beggar
bullet
bull-head
Bullingbrook
bullion

BUR

bullock
bully-rock
bul-rush
bulwark
bum
bumble
bump
bumpkin
bunch
bunchiness
bunchy
bun
bundle
bundle-wife
Bungaye
bung-hole
bungle
bungler
bunglingly
bunt
buntur
bunting
Buntingford
buoy
buoyant
buoying
bur
Burbich
burden
burdensome
burdensomness
bureau
Burford
burgess
burgesship
burgh
Burghdere
burgher
burglar
burglary
burgmote

BUT

burgomaster
burial
burlesk
burling-iron
burly
burn
burnet
Burnham
burning
burning-glass
burning-iron
burnish
burnisher
Burnley
burnt
Barntwood
burr
barrel
burrow
Burrowbridge
burse
burser
burst
bursten
burstiness
Barton
Bartonsferry
burt-wort
bury
bush
bushel
bushy
busily
business
buskin
bus
bust
bustard
bustle
busy
but

C A M

butcher
 butcherly
 butchers broom
 butchery
 butler
 butlerage
 butlership
 butt
 butter
 butterfly
 butter-milk
 butter-teeth
 buttery
 buttock
 button
 buttress
 Buxton
 buy
 buyer
 buz
 buzzard
 by
 By-berry
 by-ends
 By-ford
 by-lander
 by-lands
 by-laws
 by-place
 by-way
 by-word

C

Calvinist
 calumniate
 cambric
 Cambridge
 camoleon
 Camelford
 camelot
 camomile
 campaign

C A R

Campden
 camphire
 champion
 Canary-bird
 cancer
 candidate
 candid
 Candlemas
 candlestick
 candour
 Canibal
 canine
 canker
 Cannaston
 cannon
 canonical
 canonist
 canonization
 canonship
 canopy
 Canterbury
 cantharides
 Canticles
 cantonize
 canvals
 capacious
 capapee
 caper
 capillary
 capital
 Capitol
 capitulate
 capon
 caprice
 captain
 captious
 captive
 capture
 capuchine
 carabineer
 caravan

C A S

carbonade
 carbuncle
 carcass
 cardamum
 Cardigon
 cardinal
 carreer
 careful
 careless
 Carew
 cargo
 carlings
 Carlisle
 Carlton
 Carmarthen
 Carmelite
 carmine
 carnal
 Carnarvon
 carnation
 carnival
 carnivorous
 Carolina
 carouse
 carpet
 carpenter
 carreer
 carriage
 carrier
 carrion
 cartel
 Cartesian
 Carthusian
 cartilage
 Cartmel
 cartridge
 cascade
 cashier
 Cassiope
 cassock
 castaway

CEL

Castle-comb
Castle-rising
castling
castrate
casual
casually
casuist
catacomb
catalogue
catarrh
cataplasm
cataract
catastrophe
catch-pole
catechetical
categorical
caterer
caterpillar
cathartic
Catharine
cathedral
catholic
Cats-ash
Catterick
caterwawling
cavalcade
cavalier
cavalry
Caucles
caveate
caveer
cavern
cavernous
cauldron
caustic
caution
cautiously
Caxton
Caxwold
celebrate
celerity

CHA

cellarage
cement
censor
centaur
centinel
century
cephalic
Cerberus
cere cloth
ceremonial
certainty
certificate
cessation
chaffing-dish
chaife
chalcedony
Chaldee
chaldron
challenge
chamber
chambering
chamberlain
chambermaid
champaign
champion
chancellor
chance-medley
chancery
chandler
change
channel
chapelry
chaplain
chapman
chaplet
Chapelborn
character
charcoal
chargeable
Charing
chariot

CHI

charitable
charmer
charnel-house
chart
chartel
charter
chaste
chasten
Chatham
chattels
chatter pyc
cheap
chequer'd
cheek-bone
cheer
cheese
Chelford
Chelmsford
Chelmsford
Cheltenham
Chepstow
cherish
Cherloury
cherry-stone
cherubim
Chetham
Cheshunt
Chetelhampton
chevalier
Chewton-Mendip
Chichester
chicken
Chidingford
chidingly
chief
chieftain
chilblain
child-bearing
Childermas
Childham
chimerical

C I R

C L I

C O M

chimney-piece	circumvent	cling
China	circumvolution	clipper
Chipcase	Cirencester	clock-maker
Chippenham	cistern	clod-head
Chipping-Norton	citadel	clog
Chipping-Ongar	citation	cloister
Chirk-castle	cite	Clophill
chirographer	citron	close
chirurgeon	civet	clothier
chitterling	civil	cloudiness
chocolate	civilian	eloven
choice	clack	clownishness
choler	clad	club-footed
Cholmondely	claim	clump
chorographer	clam	clunch
Christ	clandestine	cluster
Christ-cross-row	clap	clutter
Christendom	Clapham	Clyncorug
Christmas	Clare	coacervate
Christ's Church	claret	coach
chronologer	clarification	coadjutor
chubbiness	clarion	Cobham
Chudleigh	clash	cockatrice
Church-Stretton	clasp	Cockermouth
church-warden	clatter	coddle
churlish	clave	co-efficient
chymical	clause	coffehouse
chymist	clay	Coggeshall
chymistry	clean	cognate
Ciceronian	clear	co-heir
circumference	clef	coherence
circumflex	clemency	cohabitation
circumfusion	Clement	coition
circumjacent	clenchers	colander
circumlocution	clergyman	Colchester
circumposition	Clevedon	collarage
circumrotation	clew	collection
circumscription	Cleydon	collision
circumspection	click	colloquy
circumstantial	Cliffe-kings	columbine
circumvallation	climacterical	combate

CON

comber
Comberton
combination
Combemerton
comedian
comfortable
comical
comeliness
comma
commandant
commemoration
commencement
commensuration
commodiousness
comparative
complaint
complexion
complement
comportment
comprehension
compression
concealment
concise
conclusion
concoction
concupine
condemnation
confabulation
confection
confirmation
conformable
congenial
conjecture
conjunction
connexion
conquer
conscience
consignation
consubstantial
consumption
contemplation
contradiction

CRU

controversy
contumely
convent
convulsion
cook
copious
coquet
Corbridge
cordial
corner
coronation
corpulence
corruption
cosmography
cottage
cover
counsellor
courtship
coward
coxcomb
coy
cozen
crab
crack
cradle
craft
crag
craggy
crambo
crane
crape
cravat
crawl
crayon
crew
crimson
crockdale
crookedness
crowd
Croyden
crucifix
cruel

CZA

crumb
crystal
cub
cuckold
cudgel
culmer
culpable
cultivation
cumberfome
cunning
cupboard
cur
curable
curate
curb
curdle
curiosity
curlew
currans
curry
curse
curtain
curvet
custody
custom
cut
cuz
cycle
cycloid
Cyclops
cygnet
cylinder
cymbal
cynic
cynical
cyon
cyphon
cypress
czar
czarefs
czarina
czarish

D E C

D E R

D I S

D		
Dagon	decipher	derogate
dainties	decisive	description
Dalmatia	declaimer	designation
Dalmatick	declaratively	desolation
Dalton and Castle	decoction	desperado
dam ageable	decorate	despicable
damnable	decorum	despise
dampishness	decrepid	despiteful
Danby	Deddington	despond
dandelion	dedicate	despotic
Dane-gelt	dedication	detect
dangerous	deducible	determinate
Darby	defamation	detestable
Darisbury	definition	dethrone
Darlington	deformation	detractor
Dartford	degenerateness	diabetes
Dartmouth	delectation	diabolical
Daventry	delegate	diagnostic
St. Davids	deliberation	dialling
daughter	delicacy	dialogue
dauntlessness	deliciousness	diamond
Dauphin	delightful	diametrical
dazzlingness	delineate	dictator
deaconship	delineation	dictionary
Deal	delinquent	Didmerton
deambulation	delirious	Dieping-Market
deanship	deliverer	difficult
death-watch	demi-god	diffuse
debauchee	democracy	Digby
debenture	Denton and Hall	digestion
debonairness	denunciation	dilemma
Deborough	Denzil	diligence
Decameron	Dependale	dilucidate
decampment	dependance	dimension
deceitfulness	deplorable	diminution
deceiver	deposition	diocesan
December	depravation	diploma
decemvirate	deprivative	direction
deception	deputation	disadvantage
decimation	Detcham	disagreeable
	derivation	disappoint

DIS

DOR

DUS

disband
disburden
discipline
discomfiture
discomfode
discompose
disconsolate
discontent
discontinue
discountenance
discredit
discreet
discriminate
disdain
disencumber
disfranchise
disgraceful
dishonesty
disingenuous
dislocate
disloyal
dismember
disobedient
disoblige
disparage
dispatch
dispenser
displeasure
dispossess
disprove
dispute
disquiet
disrepute
disrespectful
dissatisfactory
dissemble
dissention
dissimulation
dissolvable
dissolute
disswade

distasteful
distemper
distiller
distinction
Distington
distinguish
distracton
distress
distributor
distrustful
disturbance
dittander
diversifie
divertisement
dividend
dixination
divinity
divorcement
divulge
D-la-sol-re
docibility
Docking
Dockley
doctorship
document
Dodbrook
doggedness
Dolbenmen
dolefully
Dolgad-Van
Dolgelle
dolphin
domestick
domineer
dominical
donation
Doncaster
Dorchester
dormitory
Dorp
Dorset

doteril
doubtful
Dove and Castle
doughtiness
Dousabel
Downham
downward
doxology
drapery
drawback
draw-bridge
dreadful
dreamer
dredging box
dripping pan
driveller
Droitwich
drollery
dromedary
dropscial
drudgery
druggist
Druids
Drumborough
drum-major
Drufton-Castle
dubiousness
Dublin
ducatoon
dudgeon
dukedom
dulcimer
Dulverton
dumbness
Dunchurch
Dunston
dunghill
Dunmow
Dunnington
Dunstable
duskiness

E B O

dusky
dusky
dust
duster
dustiness
dusty
Dutch
duteous
dutiful
dutifully
dutifulness
duty
duumvirate
dwale
dwarf
dwarfish
dwell
dweller
dwelling
dwindle
dyer
dyers-weed
Dynas-Mouth
dynasty
dyscracy
dysentery
dysury

E

Earl
earnest
ear-ring
earth
earthquake
ear-wig
easiness
East-Ham
Eaterton
Eaton
eaves dropper
Ebionites
ebony

E L A

ebullition
eccentric
Eccles
Ecclesiastes
ecclesiastic
echo
eclipse
ecliptic
eclogue
ecstasy
edacity
eddy
Eden
edict
edification
edifice
edition
education
efface
effectual
effeminate
efficacious
efficient
effigies
efflation
effluvium
efflux
effort
effrontry
effulgence
effusion
egestion
Eglestonebridge
egregious
Egremon
Egypt
ejaculation
ejection
Ela
elaborate
E-la-my

E M B

Eland
elapse
elasticity
elder
election
elector
elegance
elegy
elemental
elephant
elevate
eleven
Elham
Elhil
eligible
elixir
Ellesdon
Ellesmere
ellipsis
elogy
elope
eloquence
eloquent
Elstre
Eltham
elucidate
elucubration
elusion
Elyian
Elzivir
emaciate
emasculate
embale
embalm
embargo
embark
embarras
embassy
embattle
embelish
embezzle

E N F

E P A

E S T

emblem
emboss
embowed
embowel
embrace
embrocation
embroider
embroid
embryo
emerods
eminent
Emley
emolument
emotion
empannel
emperor
emphasis
empire
employ
emprefs
emulate
emulgent
emulsion
enameli
encamp
enchant
enchiridion
enclosure
encourage
encroach
encumber
endear
endive
endow
endure
enemy
energy
enervate
enfeeble
Enfield
enfranchise

engage
engine
engrave
England
engross
enhance
enigma
enjoy
enlarge
enlighten
enmity
ennoble
enormity
enrage
enrich
enrole
ensample
enshrine
ensign
entablature
entail
entangle
entendre
entercourse
enterprise
entertain
enthrall
enthrone
enthusiasm
entice
entity
entrails
entrap
entreat
epucleate
envious
environ
enumerate
enunciation
envoy
epact

ephemeris
Ephialtes
ephod
epicure
epicurean
epidemical
epigram
epileptic
epilogue
episcopacy
episode
epistle
epithet
epitome
epitomize
Epping
Epson
Epworth
equal
equator
equilateral
equinox
equip
equity
equivocal
eradication
Ercol and Castle
erector
eremitical
erratic
error
escheat
eschew
escorial
escutcheon
espousals
esquire
Essenes
establish
estimate
Estri-Divodoch

E X P

eternal
Ethiopian
etymological
evacuate
evangelical
eucharist
event
eventilate
evermore
everhalt
Evesham
evitable
Eunomians
Euphrates
Europe
evulsion
Ewell
exactor
exchequer
exclaim
exclude
execute
exemplary
Exeter
Exmouth
Exodus
exonerate
exorbitant
exorcise
expand
expatiate
expectation
expedient
expedition
expel
expensive
experiment
expertly
expiration
expire
explain

E Z R

explanation
explication
explicite
explode
expound
express
expulsion
expunge
extend
extent
exterminate
external
extinguish
extirpate
extol
extort
extract
extraordinary
extravagant
extreamly
extrieate
extrude
extrusion
extuberance
exuberance
exuberant
exuberantly
exulcerate
exulceration
exult
exultation
exuperable
eye
eye-bright
eye-brow
eye-sight
eye-sore
eye-teeth
Eyton
Ezekiel
Ezra

F A T

F
Fabulous
facetious
facilitate
facility
faction
factor
faint-heartedness
Fairford
Fairleigh
fairy
faithful
falcon
fallacious
fallible
Falmouth
falsifier
familiar
familist
famine
famous
famously
fanatical
fantastic
fantastical
fantom
fardingale
Farnham
farinaceous
farmable
Farnborough
Farnham
farrier
Fardingdon
farthing
fascinate
fashionable
fastidious
fastness
fastning
fatality

fath
fatig
faul
favo
faw
fear
Febr
Fecl
secu
secu
fede
feeb
fecil
fell-
fello
felon
Felt
fema
femi
feoff
ferm
Fern
feroc
Ferr
Ferr
serve
serve
fertil
serve
festiv
fetlor
feuda
fever
Fever
fewel
F-fa
fiber
fiber
fibre
fickle
fictiti

F I C

fatherless
fatigue
faulchion
favourable
fawningly
fearfully
February
Feckingham
feculent
fecundity
federal
feebleness
fecilitate
fell-monger
fellowship
felonious
Felton
female
feminine
fcoffment
fermentation
Fermingham
ferocity
Ferrybridge
Ferryhill
servent
servency
fertile
servently
festival
fetlock
feudal
feverish
Feversham
fewel
F-fa-ut
fibber
fiber
fibrous
fickleness
fictitious

F L A

fictitiousness
fiddle
fidelity
fierceness
fieriness
fifteenth
figary
figment
figurative
filament
filanders
Filey
filiation
filligrane
fillip
filter
filthiness
filtrate
filtration
finable
finance
find
fineness
finger's breadth
finical
finisher
finiteness
firmament
firmly
first
firstling
fiscal
fisher-man
Fishgard
fistula
fixedness
fiz-gig
flabbiness
flaccidness
flagelet
flagging

F L O

flagitious
flagrancy
flagrant
flagrantness
flambeau
flamiferous
flanconade
Flanders
flanker
flashiness
flatness
flatterer
flatulent
flauntingness
flaxen
fleetness
flegmatic
Flemish
fleshiness
fleshliness
flexanimous
flexibility
flexibleness
flimsiness
flimsy
flinchers
flippant
flippantness
flittermouse
flix-weed
floatage
Flora
Florence
florentine
florid
floridness
founce
founder
flourish
flouter
flower-de-luce

FOR	FUT	GAR
fluctuate	fore-judge	G
fluctuation	fore-know	Gaddingly
fluellin	fore-knowledge	gaggle
fluently	fore-noon	gainfully
fluidity	fore-ordain	Gainſborough
flummery	fore-runner	gain-ſtand
fluſter'd	fore-ſpeak	galbanum
fluxibility	fore-teeth	Galenical
focillation	fore-thought	galcons
fodder	forgetful	gallantry
foggineſs	formality	gallery
foible	fornication	galley
Fokingham	forſake	gallico-ſoiſt
ſoldage	forth-coming	galley-pot
foliage	fortification	Gallican
ſollower	fortitude	gallicism
fomentation	fortunate	gallion
ſondling	forward	galliot
fontanel	Forſton	gallop
fool-hardineſs	Foulkton	galloway
fool-hardy	foulneſs	galoon
fooliſhneſs	foundation	gambol
foot-man	ſoundling	gameſom
foppery	Four-Croſſes	gameſter
foppiſhneſs	fourteenthly	gammot
ſorbearance	Fowey or Foy	gamut
forbidden	fowling-piece	gang
forceps	Fowr-hope	Ganges
forcible	fractiouſneſs	Ganymede
fordable	fragrant	garbler
Fordingbridge	frailty	garbles
fore-appoint	France	gardener
fore-arm'd	fraternity	gargarism
fore-caſt	freehold	gargarize
fore-cloſe	friendſhip	garland
fore-deem	frolickſomneſs	garment
fore-door	fructification	garniſher
fore-fathers	frugality	garnitur
fore-finger	frying pan	garretteer
fore-front	furiouſneſs	garrifon
ſorcigner	futurity	garrulous

G E O

G L O

G R A

Garstang
Garthley
Gascoigne
gasconade
gastliness
Gates-Head
Catton
gaudiness
gaudy
gavel-kind
gavelock
Gayton
gaze-hound
gazette
gazetteer
geese
geldable
gelding
geminate
geminatation
geminary
gemmow
genealogical
generalissimo
generality
generation
generosity
generousness
Genesis
Geneva
genial
geniculate
gennet
genteel
gentian
gentilism
gentleman
gentlewoman
gentry
genuineness
geography

geomancy
geometrician
Georgics
geoscopy
St. Germain
germination
gerundive
gestation
gesticulation
Gateabridge
gewgaws
ghostliness
ghostly
giant
gibble-gabble
gibbous
giddiness
Giggleswick
gigglet
gilder
gilliflower
ginger-bread
gingler
girl
girt
Gisbon
Gisborough
gizzard
gladiator
gladness
Glamfor
glanders
Glaffenbury
glazier
gleam
glebe
Glew-great
glitteringness
globular
Gloucester
gloominess

glorification
gloriousness
glossographer
glow-worm
glutinous
Gnatho
gnomonics
Gnostics
goaler
goatish
goatishness
gobblet
Godalmin
God-father
God-mother
Gofford
Gofforth
goggle-ey'd
goldilocks
Golgotha
Gomer
gondolier
gonorrhoea
goose-berry
gorgeous
gormandize
gormandizer
gospeller
gossipings
Gothic
Goths
St. Goven
governableness
governess
government
governor
gracefulness
graciously
gradual
Grafton
Graies-Thurruce

H h

G R E	G Y M	H A R
grammarian	Gregorian	gymnosophist
Grampound	grew	gyration
grampus	grievousness	gyron
granadier	grimness	H
granado	Grinsted	Habitation
granary	Grismond	hab-nab
grandame	grissel	Hackney
grantee	grittiness	haddock
grandeur	grizliness	Hadley
grand-father	groan	Hadenbridge
grand mother	grocery	Hadsho
grand fire	rogram	haggard
grannum	groom-porter	Haggerston
grant	groop	Hague
grantee	groove	hainous
Grantham	gross	halbart
grantor	grotesk	halcyon
granulation	grotto	Hales-Owen
graphically	groveling	Halesworth
grass	ground-ivy	half-moon
grass-hopper	group	Halifax
grass-plat	grout-head	halliards
grassy	growl	halloo
gratefulness	grubbage	hallow
gratification	gruel	Haltfield
gratings	gruffness	hamlet
gratitude	Grynton	hammerer
gratulatory	grumble	hamper
graveness	guarantee	Hampton
Gravefend	guardian	ham-string
grayhound	gudgeon	handkerchief
grazier	Guild-Hall	handmaid
greasiness	Guilford	handsomeness
greatness	guileless	handy
Grecian	guinea	hanger-on
Grecism	gun	Hanly
Greece	gun-powder	Hammere
green	gush	hans-en-kelder
green-house	gutter	happiness
greenness	Guy	harangue
Greenwich	gymnastics	harass

HEA

HER

HOL

harbinger	heathenism	herring
Harborough	heavenly	Hertford
Harbottle-Castle	heaviness	hesitate
hardly	Hebraism	hesitation
Hardwicke	hecatomb	heterodox
hair-brain'd	hectic	heterogeneous
Haringworth	heedful	hexagon
harrowable	heifer	hexameter
Harleigh	heir-loom	Hexham
harlequin	Helford	hickup
harlotry	heliacal	hidebound
harmful	hellebore	hideousness
harmlessly	Hellenist	hierarchy
harmonious	Hellepont	hieroglyphic
harness	hell-hound	Highgate
harpooners	hellishness	Highworth
harpichord	helm	highness
harshness	helpful	Hilary
Hartlepool	helpfulness	Hilborough
hartshorn	Helston	Hindon
harvest	helter-skelter	Hingham
Harwich	hemicycle	Hinxly
hassock	hemlock	hippocras
hastiness	Hempsted	hissing
Hastingsden	henceforth	historian
hateful	hen-hearted	historiographer
Hatfield	herbaliſt	hithermost
Haverford	Herculean	Hittites
haughtiness	hereditament	Hivites
havock	hereditary	hoarseness
hautboy	Hereford	hobgoblin
Hawkehead	heretically	hodge-podge
hawser	heretage	hoggishness
hazardous	Herling	hog-grubber
headborough	hermaphrodite	hogthead
Headdon	heremetical	Holbeach
healthful	hermodactyl	holioak
hearkener	hernshaw	holiness
heart-burning	Herodians	Holland
heartiness	heroical	hollowness
heath-cock	heroine	Holy-well

HUC

HYP

JEW

homage	hug	hysteric
home	hugously	hysterical
homeliness	hugger-mugger	hystericalness
Homer	Hugonot	I
home-spun	humanist	Jacobite
homicide	humanize	jagged
homily	humanly	jail-bird
homogeneous	humbleness	Jamaica
homologous	humid	lambic
honestness	humidity	jangle
honey-comb	humiliation	Janizary
honey-moon	humorist	jannock
honorary	Hunanby	Janfanism
honourable	hunch-back'd	January
hook	Hungary	Japan
hooked	hungrily	japanner
hopeful	hunks	jar
hopper-ars'd	hurlers	jargon
hops	hurry	javelin
Horeb	hurt	jaundice
hore-hound	hurtful	ichnography
horizon	husband	iconography
horizontally	Hussars	ideal
Hornet	Hustings	identical
horological	hut	idiom
horoscope	hutch	idiomatically
horridness	huzza	idleness
horse-leech	hydra	idolate
horsemanship	hydraulics	jealous
horse-raddish	hydrographer	jeerer
Hosanna	hydromel	Jeffrey
hospitable	hydrometer	Jehovah
host	hydropical	jeune
hostile	hymn	jennet
hostileness	hyperbole	jeopardy
hot-cockles	hyperbolical	jerkin
hotness	hypochondriac	jeffamin
hotch-potch	hypocrisy	jest
household	hypocrite	Jesuit
hubble-bubble	hypostatic	Jesus
huckster	hypothetical	jeweller

I M M

ignoble
ignominious
ignoramus
ignorance
ignoscible
illegal
illegitimate
illicit
illiterate
ill-natured
illogical
illuminate
illusion
illustrate
Ilminster
imagery
imaginary
imagination
imbalm
imbargo
imbarkation
imbattle
imbellishment
imbezzel
imbibe
imbitter
imbolden
imbosom
imbrication
imbroider
imbroil
imbrue
imitable
imitative
imitator
immaculate
immanent
immaterial
immature
immediate
immemorial

I M P

immense
immerge
immerse
immethodical
imminent
immoderate
immodest
immoral
immoveable
immunity
immutably
impale
impanel
imparlance
impartial
impassable
impatience
impeach
impede
impenetrable
impenitence
imperative
imperfect
imperial
imperious
impertinence
impetuous
impious
implacable
implead
implicit
implore
employment
impolite
imporous
importation
importune
imposition
impossible
impollure
impotence

I N C

impoverish
impracticable
imprecate
impregnate
impres
impression
imprimis
imprint
imprison
improbable
improper
impropriator
improvable
improvement
imprudence
imprudent
impudence
impudent
impugn
impunity
imputation
inaction
inactivity
inadvertency
inalienable
inamorato
inanimate
inarticulate
inaugurate
inauspicious
incamp
locantor
incapacitate
incarceration
incendiary
incense
incentive
incessant
incessuous
inchanter
incident

I N C

incircle
incitement
inclemency
inclinable
incloister
inclosure
include
inclusively
incognito
incoherent
incommode
incompact
incomparable
incompass
incompetent
incomplete
incompose
incomposed
incongruous
inconnexion
inconsiderate
inconsistent
incontinent
inconvenient
incorporate
incorrect
incorrigible
incorrupt
incounter
incourage
increated
incredibility
incredulous
incroach
incumbus
inculcate
incumbent
incumbrance
incur
incurable
incursion

I N N

indearment
indebted
indecenty
indecorum
indefatigable
indelible
indemnity
indenture
independent
Index
India
Indian
indicant
indictment
indifferent
indigence
indigato
indignation
indignity
indirectly
indiscreet
indiscretion
indiscriminate
indispensable
indisposed
indisputable
indistinct
inditable
individual
indivisibility
indocible
indolence
indorse
indubitable
induce
induction
indulgent
indulto
indurable
indurate
innumerableness

I X W

inobservance
inoculation
inoffensiveness
inordinate
inquiet
inrolment
insatiable
inscription
inseparable
insolent
instrument
insupportable
intemperate
intendment
intercommoning
interment
interwoven
inthralment
intolerable
intrenchment
inveterate
invincible
invulnerable
Joan
Job
jocund
joiner
iron
irrecoverable
Iris
Israel
isthmus
justification
Justinian
juttle
jatty
juvenile
juvenileness
juvenility
ivy
Ixworth

• K I C

K I T

K N O

K

Kayage
kedger
keech
keelhalling
keen
keenness
keeper
keeve
keg
kell
Kellington.
Kelmark
kelp
kelter
kemb
kembo
ken
Kencall
Kenford
kenks
kennel
kennets
kerb
kerchief
Kermes
kern
kernel
kersey
kestrel
Ketwick
ketch
Kettering
kettle
Kettlewell
kex key
Keyworth
kibe
kibe heels
kick
kickshaw

kidder
Kidderminster
kidnap
kidnapper
kidney
kidney bean
Kigworth
kilbuck
kilderkin
Kilgarren
Kilham
kill
killer
kiln
kimmel
kin
kind
kindle
kindly
kindness
kindred
Kineton
kingdom
king-like
kingly
Kingsbridge
Kingsteleere
Kingston
Kinsland
kinsman
kinswoman
kintal
kipe
Kirk-Burton
Kirk Oswald
Kirkcubright
kirtle
kiss
kitchen
kitling
kitten

kittle
click
clicker
klittering
knack
knacker
knag
knaggy
knap
knappish
knappishness
knapple
knappy
knapsack
Knaresborough
knave
knaveish
knaveishly
knead
kneader
knee-holm
kneel
knee-string
kneel
knevels
knew
knick-knacks
knife
knight
knight-hood
Knighton
knit
knitter
knob
knobby
knock
knocker
knocking
knoll
knop
knot

L A P

L E G

L I K

knottily	lapwing	legible
knottiness	larboard	legislative
knotty	larceny	legitimate
*know	larderer	Leicester
knowingly	large	Lemington
knowledge	Larlingford	lemonade
knowl	larmier	lenity
knubble	lasciviously	lent
knuckle	lashers	leopard
knur	lassitude	leprosy
knurling	Lateran	less
Krickieth	latitude	Lessian
Kyneton	latten	Letice
L	laudable	letter
Labyrinth	laudableness	Levant
lachrymation	laudanum	levee
Laconic	lavender	Liverpool
lactation	laughing-stock	Levitical
lady's-bed-straw	Laving-East	lewdness
lambent	launders	Lexicographer
Lamborne	lawless	Lexicon
lamkin	lax	liableness
lameness	lay-brother	libel
lamentable	Laystoff	libellous
Lammas	Lazeretto	liberality
lampadary	Lazarole	liberdine
Lanbister	lazinefs	libertine
Lancaster	lead	librarian
Landaff	leaf	license
land-call	leaguer	licentious
Landrino	Learmouth	Litchfield
land-loper	learning	lickorishness
landskip	least	lictors
Langport	lecherous	lie
language	lecture	Lieutenancy
Languard-Fort	Leeds	life-guard
languidness	Leeke	lift
languor	leese	ligature
lankness	leetch	lightning
lantern	leeward-way	likelihood
lapidation	legacy	likeness

LOF

LOU

LUX

filack	log	lousiness
Lilburn	logarithm	Louth
limberness	logarithmical	Loughborough
limbo	logger-head	Low-Countries
limner	logician	lowness
limonode	log-wood	Lowther
limpness	loin	loxodromics
line	loiterer	loyalness
lineament	Lombard	lozenge
lingerer	London	lubricity
linguist	lonesomeness	lubrify
liniment	long boat	lucidness
link-boy	longanimity	Lucifer
linsey woolsey	longevity	lucky
Linton	longitude	lucrative
Lionel	Long-Meg	lucubration
liquable	Longnor	Luddeston
liquation	long-thanks	ludicrous
liquefaction	long-winded	Ludlow
liquor	looby	luff
lisper	loof	Luffenham
listener	looking-glass	luggage
litany	loom	ludore
literally	loon	lukewarmly
litigation	loop	luminous
litigious	loop-lace	lumpishness
Little-borough	looseness	lunacy
lithurgy	lop	lunar
livelihood	lopper	lunatick
liveliness	loquacious	lung-wort
lixivious	loquacity	luscious
lixivium	lordliness	lustful
lizard	lorimer	lustiness
lobby	lofs	lunatist
lobs-pound	lot	Luther
localness	lothsom	Luton
lockram	lottery	Lutterworth
locust	loudly	luxate
locution	Loughton	luxation
lodgment	lovingness	luxurious
loftiness	Louis d'ors	ly

M A J	M A N	M A R
lycanthopist	mail	mango
lycanthropy	main-mast	manhood
Lydford	main-prize	Manichees
Lydia	maintain	manifesto
lympa	maintainance	mankind
lymphate	major	manliness
lymphatic	make-hate	manna
Lyn	malady	mannerly
Lyn-Regis	Malaga	Manningtree
lyre	malapert	Mansfield
lyric	male-content	man-slaughter
lyrist	malediction	manteau
M	malevolence	mantlet
Maccabees	malice	manual
Macclesfield	maliciousness	manufactory
mace-bearer	malign	manure
macerate	malignancy	manuscript
Machiavilian	malkin	maple
macination	mallard	Maranatha
machine	malleableness	marble
mackarel	Malling-West	Marchal-Marsh
madam	mallows	marchioness
mad-cap	Malsbury	Maresfield
maddish	malmsey	Marforio
madness	Malpas	Margam
madrigal	malster	margin
magazine	Malvern-Magna	margrave
maggot	Malvern-Perva	matigold
magic	Malwood-Castle	mariner
magician	mamma	marjoram
magisterially	mammoth	maritim
magistrate	mammon	Markham
magnanimous	management	marker
magnet	Manchester	marketable
magnificat	mandamus	Market Street
magnificence	mandarin	Marlborough
magnify	mandate	Marlow
mag-pye	mandrake	marmalade
Mahometan	manfulness	marmalet
maiden	mange	marmotto
majestic	mangle	marquess

M A T

M E D

M E R

marriage	mattock	mediate
Mars	mattress	mediator
marshal	maturate	mediatress
Marshallsea	mature	medicable
marsh-mallows	maudlin	medicinable
martagon	maugre	medicinal
martial	maulkin	mediocrity
martingal	maunder	meditation
Martlemas	Maunday	Mediterranean
Martinmas	mawkish	medullary
Mattock	maw-worms	meekness
martyr	maxillary	melancholic
martyrdom	maxim	melancholly
martyrology	Maximilian	melasies
marvel	May-day	Melicent
marvelous	mayor	melilot
masculin	mayorality	meliorate
Masham	mayores	mellifluous
mason	May-pole	mellow
masquerade	mazarine	melodious
massacre	Mazzaroth	melody
massiness	mead	meltable
masterless	meadow	Melton Mowbray
master-piece	meagre	member
mastership	meal	membranaceous
mastich	mealy-mouth'd	membrane
mastiff	mean	memoirs
materiality	Meander	memorable
mathematical	meaning	memorandum
mathematicks	meanness	memorial
matins	measurable	memory
matrice	measure	menace
matricide	meawing	mendicant
matricular	meazles	menial
matrimonial	meazly	menfes
matrimony	méchanic	measurable
matrix	mechanically	mensuration
matron	mechanism	metal
matrosses	medal	mercantile
matted	medallion	mercenary
matter	median	mercery

MIG	MIS	MOR
merchandize	migration	mistrust
merchant	Milbrock	mistiness
Mercury	mildew	misuse
merciful	midness	mittimus
Megram	Mildred	mixen
Meriden	millener	mixture
meridian	Milthorp	mob
meridional	Milton	mock
merit	mimic	Modbury
meritorious	mimical	model
Merlin	mimickry	moderate
mermaid	mindful	moderation
merriment	mineral	modesty
Merton	Minerva	modestie
mess	rainew	modulation
mesenteric	mingle	moistness
message	miniature	molestation
messenger	minion	Moloch
Messiah	minister	moment
messuage	ministration	monarchy
metal	minstrelsey	Monday
metalline	minuet	mongrel
metaphrast	miraculous	monkey
metaphor	mirror	monochord
meteor	mirth	monopoly
metheglin	misadventure	monsoon
method	misbecome	Montonist
methodist	miscarriage	Montfort
metropolis	miscellany	monument
Michael	mischance	moody
Michaelmas	misconstrue	moor-hen
micrography	misdoubt	mope
micrometer	misfortune	moppet
microscope	misgovern	moreover
Midhurst	mislead	Morgan
Middleton	mismanage	morn
Middlewich	misname	Morocco
midshipman	mispend	Morpeth
Midsummer	misreckon	Morpheus
mid-winter	mis-shapen	mortgage
mightily	mistaken	Morton

MYT

NET

NIT

Moses
mosque
motherly
moveable
moulder
mountain
mountebank
Mouthole
mourner
mouth
much
muck-worm
muddiness
multiply
multitude
Munster
Muntford
murky
muscle
Muscovy
music
mushroom
musket
mutable
mutation
muster
mutton
mutual
muzzle
Myriads
Myrmidons
myrrh
myrtle
mysterious
mysteriously
mystery
mystical
mysticalness
mythological
mythologist
mythology

N
Narcissus
narrative
nativity
natural
naturalize
naughtiness
navigable
nauseous
Nazarene
nebulous
necessariness
necessitous
neck-cloth
necromancer
Needham
needfulness
needle
nefarious
negation
negative
negligence
negotiate
negotiator
neighbour
neighing
St. Neots
nephew
nephritic
Neptune
Nereids
nergal
nerval
nervous
nestling
Nestorians
Netherlands
nethermost
nettings
nettle
Nettlebed

never-more
Nevern
Nevin
neurology
neutral
new-fangled
Newgate
newness
Newark
Newborn
Newburg
Newbury
Newbridge
Newcastle
Newmarket
Newport
Nicene
niceness
nichils
St. Nicholas
nick-name
nick-ninny
Nicolaitans
niece
niggard
nightingale
night-raven
nightshade
night-walker
Nilometer
nimble
nimbleness
nincompoop
nineteen
ninety
ninthly
nipperkin
nipple
nisi-prius
nitrous
nitiness

QCC

OIL

ORI

obligate	occupation	oilet-hole
obligatory	occupier	oiliness
oblige	occur	ointment
obligee	occurrence	oister
obligement	ocean	Okeham
oblique	Okeingham	Okehampton
obliterate	octangular	oker
oblivion	octave	oldish
oblivious	octavo	oleaginous
oblong	October	olfactory
obloquy	octagon	olitory
obnoxious	ocular	Olympiad
obnubilation	ocularness	Olympic
obscene	oculist	Ombersly
obscenely	Ode-hill	ombre
obscenity	odious	Omega
obscurity	odiously	omen
obsequious	odor	ominous
obsequies	odoriferous	omission
observable	odorous	omnipotence
observant	economy	omnipresence
observation	economics	omniscience
observer	offend	onerate
observatory	offender	Ongar-High
observe	offensive	opacity
obsolete	offering	opacious
obstacle	offertory	opakness
obstinacy	office	open-arse
obstinate	officer	operate
obstreperous	officiate	operation
obstruct	officious	operator
obstruction	officiousness	ophthalmic
obtain	off-scouring	opiate
obtrude	off-sets	opinion
obtruder	offspring	opiniative
obtrusion	oftentimes	opiniated
obviate	OgbornSt. George	opium
obvious	ogce	opponent
occasional	ogle	opportune
occult	ogling	opportunsely
occultness	oil-bag	opportunity

O R I

opposition
 oppression
 oppressor
 opprobious
 opprobrium
 oppung
 optic
 optic-glass
 opulence
 opulent
 oracle
 oracular
 orange
 orangery
 oration
 orator
 oratory
 orb
 orbicular
 orbit
 orchard
 ordain
 ordalain
 orderer
 orderliness
 ordinal
 ordinance
 ordinariness
 ordinary
 ordination
 ordnance
 ordonnance
 ordure
 Orford
 organ
 organical
 organicalness
 organist
 organization
 organiz'd
 orient

O S T

oriental
 original
 originalness
 Orion
 orison
 Ork
 Orkneys
 Orlando
 Orlop
 Orlton
 Ormskirk
 ornament
 ornamentalness
 ornithologist
 ornithomancy
 Oroonoko
 orphan
 orphanism
 Orpheus
 orpiment
 Ormery
 orrice
 orthodox
 orthogonal
 orthographer
 orthographical
 orthography
 Orton
 Orton-Maddock
 orvietan
 oscitant
 oscitation
 osier
 Osiris
 Osmundston
 Osmund-Royal
 osprey
 Ostend
 ostensive
 ostentation
 ostentatious

O V I

osteology
 ostler
 ostrich
 Ostrogoths
 Osweltry
 Osyth
 otherwise
 Otley
 Ottoman
 oval
 ovation
 oubut
 oven
 over-act
 over-balance
 over-bear
 over-board
 over-charge
 over-clouded
 over-done
 over-eat
 over-fill
 over-grown
 over-hastiness
 over-loaden
 overmatch
 over-plus
 over-power
 over-poise
 over-reach
 over-seer
 over-shadow
 Overton
 over-top
 overture
 over-turn
 over-value
 over-weening
 over-whelm
 Ovid
 Ovingham

ovip
 Oule
 oule
 Ouse
 out-
 outw
 out-
 outw
 out-
 ouze
 Owe
 owle
 owne
 Oxfo
 Oxw
 oxyg
 oyer
 oyez
 ozier

Padd
 padd
 padlo
 padn
 Padst
 Padu
 pagan
 pagea
 pagoc
 Pamp
 pain
 Pain's
 painli
 painin
 paint
 painti
 painti
 -alace
 palata
 p

P A L

R A P

P A R

oviparous
Oulney
ounce
Ouse
out-landish
outward
out-lawry
outrageous
outrun
outwardly
out-works
ousel
Owen
owler
owner
Oxford
Oxwich
oxygen
oyer
oyez
ozier

B

Paddington
paddle
padlock
padnag
Padstow
Padua
paganism
pageant
pagod
Pamphill
pain
Pain's Castle
painful
painim
paint
painting
paint-trainer
-alace
palatable

Palatinate
Palatine
palenefs
palinody
palish
Palladium
pallate
palliation
Pall-Mall
palmerworm
palmestry
palm-tree
palpable
palpitation
Palsgrave
palsy
paltry
pamper
pamphlet
pan
panado
pan-cake
Pancras
pancreas
Pandefts
pander
Pandora
panegyric
pangs
panic
pannage
pannel
pannier
pant
pantaloons
panting
Pantheon
panther
pantoffe
pantry
papacy

papism papist
papistry
pappa
Papplewich
pappinefs
par
parable
parabola
parabolical
Paracelfus
paradise
paradox
paragraph
parallel
paralytic
paramour
paraphrase
paraphratical
parafceve
parboil
parcel
parchment
pardon
pardonner
parentage
parenthesis
partitioner
parley
parliament
parliamentary
parlour
parmefan
parochial
parole
parricide
party
parsimonious
parsimony
parsley
parsnip
parson

P A T

P E N

P E R

partake	patriot	pencil
partial	patriotism	pendant
participate	patrol	Pendennis-Castle
participation	patron	pendulum
participial	patronage	penetrable
particle	patronize	penetrate
particular	patty	penetration
particularly	paucity	Penguin
parting	pave	peninsula
partisan	pavilion	Penistone
partnership	pause	penitent
partridge	pawn	pen-knife
pass	pawn-broker	penant
pasquin	payable	penniless
passable	payment	Pennystone
passage	peacock	Pennyfont
passenger	pear-main	pennyroyal
passibleness	peasant	Penruddock
passible	pebble	Penryn
passion	peccadillo	Pensance
passionate	peccavi	pension
passive	pectoral	pensionary
passover	peculiar	penive
passport	pedagogue	peniveness
pastime	pedantic	pentagon
pastry	pedigree	pentateuch
pastry-cook	pedo-baptism	Pentecost
patacoon	peerdom	penurious
patcher	peevish	pepper
patch-box	peevishness	peradventure
patentee	Pegasus	peragration
pathetic	Pelagians	perambulation
pathetical	pelican	perceive
patience	pel-mel	perception
patientness	pelt-monger	perch
patriarch	Pembridge	percolation
patriarchship	Pembroke	perdition
patrician	penal	perduration
patrimonial	penalty	peregrination
patrimony	penance	peremptory
Patrington	pence	peremptorily

P E R

P H I

P O M

perennial	perseverance	Philologer
perfect	persevere	philosopher
perfection	persist	phlebotomize
perfidious	personable	phlegmaticness
perfidy	personage	Phosphorus
perforate	personality	phrase
perforce	personate	Phrygian
perform	perspective	physic
perfume	perspicuity	physognomy
perfunctory	perspicuous	pizza
perhaps	perspiration	pickaxe
pericranium	persuasive	Picketing
perilous	persuasion	Picts
period	persuasiveness	pierce
periodical	pertain	pigmy
peripatetic	pertinacious	pilchard
periphery	pertinence	plant
periphrastically	pertinent	plantation
perish	pertingent	pleasure
perishableness	perturbation	pliant
perjure	Peru	plough
perjury	pervade	plumb
periwig	perverse	plunder
periwinkle	pervert	Plymouth
permanent	pervicacious	pneumatal
permission	Peruvian	poach
permit	pestilence	pocket
permutation	petardeer	poetry
pernicious	Peterborough	poinant
peroration	Peter-Church	political
perpendicular	Petersfield	politician
perpetrate	Petherton South	polisher
perpetual	Petherton North	polite
perpetuation	petrification	polling
perpetuity	pettifogger	Polverbatch
perplex	pettulance	polygamy
perquisites	phantastical	polygraphy
Peribridge	Pharisee	pomander
Perishore	pharmaceutic	pome-citron
Persia	philanthropy	pomiferus
persecute	Philip's Norton	pommel

P U, E

pompous
 pond
 ponderous
 Pontepool
 pontificate
 Pontepolen
 pope
 popinjay
 porcupine
 pork
 portcullis
 porter
 Portsmouth
 positive
 possession
 postage
 posterior
 posthumous
 posture
 potentate
 practicable
 pragmatism
 praise
 prawn
 preacher
 precarious
 precedence
 predestinate
 pre-eminence
 preference
 pregnancy
 prejudication
 prelate
 premature
 prenomination
 pre-occupy
 preposterous
 presbyterian
 public
 pudder
 puerility

P U R.

puffing
 pugil
 puissant
 pulchritude
 Pulford
 Pulham
 Pulhely
 pullet
 pulmonery
 pulpit
 pulsation
 pulverization
 pumice
 pummel
 pumpkin
 punch
 punchanello
 punchion
 punctilio
 punctuation
 puncture
 pungency
 pungently
 punger
 punic
 punish
 punishment
 punk
 puppet
 puppy
 purblind
 purchase
 pureness
 purgation
 purgatory
 purification
 puritanism
 parling
 parloin
 purport
 purpose

Р У Ж

purring
 purser
 purslain
 pursuance
 pursuit
 pursuivant
 Purton
 purvey
 purveyance
 purulent
 push-pin
 pusillanimity
 puss
 pustulous
 put
 putanism
 putative
 putid
 put-off
 putter
 putrefaction
 putresc
 putrid
 putridness
 puttock
 putty
 puzzle
 pybald
 pyc
 pygmy
 pylorous
 pyramid
 pyramidal
 pyramidiol
 pyromancy
 pyrotenchny
 Pythagoras
 Pythagorean
 Pythoness
 pyx

QUA

QUE

QUO

Quadragesima
quadragesimal
quadrangle
quadrangular
quadrant
quadrantal
quadrat
quadrate
quadratic
quadratrix
quadrature
quadrimonial
quadrupartite
quadrupartition
quadrifyllable
quadrivial
quadrupedal
quadrupedes
quadruple
quadruplication
quaffer
quag-mire
quail
quaint
quaintly
quaintness
quake
quaker
quakerism
qualification
qualific
quality
qualm
qualmishness
quandary
quantity
quarentain
quarrel
quarreller
quarrelled

quarrellsome
quarrellsomeness
quarry
quart
quartan
quarter
quarter-day
quarteridge
quarterer
quarterly
quarter-master
quarter-round
quarter-sessions
quatern
quarter-staff
quarto
quash
quaver
quean
queen
Queenborough
queer
queerness
quell
queller
quench
quenchable
quencher
querent
querist
querk
querulous
query
quest
quest-man
question
questionable
questionableness
questionist
questionless
questor

quibble
quick
quicken
quickly
quickness
quick-sand
quickset
quick-silver
quick-sighted
quick-witted
quicky-tree
quid
quiddany
quiescence
quiescent
quiet
quieter
quietism
queitist
quietly
quietness
quill
quilt
quince
quineux
quinsy
quint
quintain
quintal
quintessence
quintessential
quintil
Quintilian
quire
quirister
quit
quit-claim
quite
quit-rent
quiver
quoted

R A M

R A V

R E C

R

Rabbi
 Rabbin
 rabble
 race
 racket
 rackoon
 radiancy
 radiant
 radicalness
 radical
 radicate
 raddish
 radius
 Radnor
 raff
 raffle
 rage
 rag-bolts
 raggamuffian
 ragged
 Ragland-Castle
 rag-man
 ragoo
 rail
 railery
 Raimund
 rain-bow
 rain-deer
 raip
 raise
 rake
 rake-hell
 rakish
 Raleigh
 Ralpho
 ramazan
 ramble
 ramage
 Ramish
 rammer

Ramsbury
 Ramfey
 ram's-head
 rancid
 rancour
 Randal
 random
 ranger
 rankness
 rankly
 ransom
 ransomer
 rantipole
 rapacious
 rapid
 rapine
 raparee
 rapsody
 rapture
 rarely
 rarity
 rascal
 rascally
 rase
 Rason-Market
 rashness
 razor
 ratafia
 rather
 ratification
 ratific
 rational
 rats-bane
 rattle
 rattle-snake
 ravelin
 Raven-glas
 ravenous
 raving-mad
 ravisher
 ravishment

raze
 reach
 re action
 readiness
 Reading
 re-admission
 re-admit
 real
 realize
 realm
 re-animate
 re-ascend
 reaper
 rear-guard
 reason
 re-assemble
 re-assign
 re-assume
 re-baptize
 rebate
 rebatement
 rebel
 rebellious
 rebound
 rebuff
 rebuild
 rebuke
 recal
 recant
 recantation
 recapitulate
 recede
 receivable
 receiver
 recent
 recentness
 recess
 Reche
 recipe
 reciprocal
 reciprocate

RED

recital
recitativo
recite
reciter
reckoning
reclaim
recline
recognition
recognize
recognizer
recoil
recollect
recollection
recompence
recommend
recommendation
recompense
recompose
reconcilable
reconcile
record
recorder
recover
recoverable
recount
recreate
recruit
rectangular
rectify
rector
rectory
Reculver
recumbence
recumbent
recurrent
recusson
Redborn
Redbridge
reddish
redeem
redeemor

REL

re-deliverance
Redford
ridiculous
redouble
redound
Redruth
Red-sea
reduction
redundant
re edifie
re-entrance
re establish
re-examination
reference
refinement
reflexion
reformation
refractory
refresh
refuge
refusal
regain
regality
regard
regeneration
regiment
region
register
regret
regular
rehearse
reject
reign
re-imbark
rejoin
rejoice
relation
release
relent
relief
religion

RYE

reluctant
remain
remarkable
remedy
remember
remit
remnant
remonstrate
remorse
removeable
rencounter
rendezvous
renegade
renovation
renounce
renown
rent
repair
reply
reprint
reproach
reproof
repute
resemble
resolve
resolute
resort
rest
rheumatism
rich
riddle
ride
river
robe
rogue
Rome
royal
rude
run
rush
Rye

S A L

S A T

S C A

S		
Sabellians	salubrious	satisfaction
Sabines	salver	satisfie
fable	salvo	fattin
fabre	salutary	Saturday
Sabridgworth	Samaria	Saturn
sacredotal	Samaritan	Saturnine
sack-cloth	Samech	satyr
sacrament	samphire	satyrically
sacred	sampler	satyrift
sacrifice	sanctification	savageness
sacrilege	sanctimony	sauc-box
sadden	sanction	saucer
saddle	sanctuary	sauciness
Saddleworth	Sanbach	sausage
Sadducee	sandbag	save-all
safe-conduct	sand-blind	saving
safe-guard	Sandbury	saviour
saffron	sand-eels	saunter
Saffron-Walden	Sandgate-Castle	savory
sagacious	Sandhurst	Savoy
sagely	sandlin	Savoyard
Sagittary	Sandown-Castle	Sawley
sainfoin	Sandwich	Sawthey
salamander	sandy	Saxmundham
salary	Sandy Chapel	Saxon
sale	sanguin	Saxony
sales-man	Sanhedrim	scab
salique	santer	scabbard
Salisbury	saplessness	scabbed
saliva	saraband	scabbiness
salivate	Saracen	scaffold
Salkeld	sarcasm	scalado
sally-port	sarcastically	scalding-hot
salmigundy	sarsenet	scalp
salmon	Sar-street	scamper
Salutah	sassafras	scandal
salter	Satan	scandalous
Saltfleet	satcl	scantiness
salt-petre	satellites	scar
salvage	satiate	scarramouch
	satiated	Scarborough

SCR

SEC

SEN

scarcity	scream	secretary
scare-crow	scribe	sect
scarlet	scriptural	sectarian
scatter	scripturist	section
scavenger	scrivener	secularity
skeleton	scrofulous	secureness
scene	scrub	sedan
scenography	scrupulous	sedate
sceptic	scrutinize	sedber
scepter	scud-away	Sedburg
scheme	sculk	Sedgefield
schism	scull	Sedgeswick
scholar	scullion	sediment
scholastic	sculpture	seditious
scholiast	scum	seducer
school	scupper-hole	seduction
school-divine	scurilous	seek
schoolman	scurviness	seem
science	scutcheon	seen
scimeter	scymitar	seethe
scholist	Scythia	seize
scirrhous	Scythian	seldom
scissors	scythe	select
scoffers	sea-chart	self
scold	sea-faring	selfish
scollop-shell	Seaford	self-evident
scold	sea-green	selvage
scold	seal	semicircle
scold	seamster	semicolon
scold	Sean	seminal
scold	sea-port	semi-vowel
scold	search	senate
scold	sear-cloth	send
scold	Searn-Abbey	seniority
scold	seasonable	sen-night
scold	Sebastian	sensation
scold	secant	sense
scold	secession	sensitive
scold	seclusion	sensory
scold	secondarily	sent
scold	secret	sentence

S H O

S K I

S P I

shallow	Shrawarden	Skinninggrave
shaloon	shrewdly	Skirking
shambles	Shrewsbury	skirmisher
shame-fac'd	shrivell'd	skittishness
sharp	shrubbishness	sky-colour
sharper	shiness	slab
sharp-sighted	Sicilian	slanderous
sharp-witted	Sicily	slavishness
shatter	sickness	Sleaford
shaver	side-board	sleeveless
Shaw-crofs	sideral	slightness
Sheals N. and S.	Sidland	slipperiness
shear-man	Sidmouth	sloe-worm
sheep-cote	sieling	slothfulness
sheepishness	sightless	slug-gard
Sheffield	signal	smackering
shelf	signet	smectymnuans
Shepham	signification	smitter
shepherd	signific	Smokington
shepherdess	Silchester	snap-dragon
Sherborn	silence	sneakingness
sheriff	gillabub	Socineanism
sherry	gilliness	solemnization
Sherston	Silverton	solicitude
shew-bread	silver-smith	Solomon's-Seal
shield	simoniacal	Somerfetshire
shifter	simper	songster
shilling	simpleton	sophistical
Shiloh	simulation	fordid
shin-bone	sincereness	South-Moulton
shingle	sinewiness	Southwold
shipwash	singleness	spacious
Shipwrack	singularity	spangle
shitten	sirenizing	Spaniard
shittle-cock	Sittingborn	speaker
shop-keeper	Sittingham	specific
shop-lifting	sixteenthly	spectator
Shoreham New	skagger-trout	speech
short-sighted	Skellingthorp	Sphinx
shoulder	skepticalness	Spilsby
shoulder-knot	skillfulness	spinage

SPR

SQU

STA

spinal	spread	squancy
spinet	sprig	squint-ey'd
spinner	spright	squire
spinster	spring	squirt
spire	spring-tide	St.
spirit	sprinkle	stab
spiritual	sprit-sail	stable
spiritualness	sprout	Stabridge
spit	spruce	stack
spire	sprung	Stafford
spiteful	sprunt	stage
spittle	spud	stagger
splash	spue	stagnant
splatch	spume	stagnate
splay-footed	spun	Stagyrite
spleen	sponge	staid
splended	spunk	stain
splendor	spur	stairs
splenetic	spuriousness	stake
splent	spurkets	stale
splice	spurn	stalk
split	spur-rial	stall
spoil	spurt	Stamford
spoke	spy	stamp
spokes-man	squab	Stanbridge
spoliation	squabble	stanch
spondee	squadron	stand
sponsal	squatted	standish
spontaneous	squalley	stang
spool	squander	Stanford
spoon	square	Stanhope
sport	squareness	stank
sportful	squash	stannary
spot	squat	Stanton
spotless	squawl	stanza
sponse	squeak	staple
spout	squeal	star-board
spRAIN	squeamish	starch
sprat	squeeze	stare
sprawl	squib	starry
spray	squill	start

STI

STR

STU

Startup	stink	straw
starve	stint	stray
state	stipend	streak
statesman	stipulate	stream
stationer	stir	street
statue	stirrup	strength
statute	stitch	strenuous
stave	stiver	strefs
stay	stock	stretch
stead	stockings	stretham
steak	stockton	strew
steal	stoic	stricken
steam	stoke	strictness
Stebbing	stole	stride
stedfastly	stomach	strife
steed	stomacher	strike
steel	stone	string
sleep	stood	ripe
steeple	stook	strive
steers	stool	stroke
steers-man	sloop	strole
stem	stop	strond
stench	store	strong
step	stork	struck
step-father	storm	struggle
step-mother	story	strumpet
steril	stote	strung
sterling	stove	rubbed
stern	stout	rubble
stew	stowage	stubborn
steward	straddle	stuck
rickle	straggle	stud
sticky	straight	student
stiff	strain	study
stifle	strait	stuff
stigmatical	strake	stumble
stile	strand	stunt
still-born	strange	stupendous
stilton	stranger	stupid
stimulate	strap	stupidify
sting	stratton	stupration

S U P

Sturbridge
Sturminster
stutteringly
stypticness
subaction
subaltern
sub-consequence
subdivision
subdue
subjection
subjunctively
sublieutenant
sublimation
submersion
submissiveness
subordinateness
subscription
subservientness
substantialness
subterraneous
subtraction
succeedaneous
successfulness
succinctness
succulentness
succumbent
sudorificity
sufficientness
suffumigation
suitableness
sulphurous
summariness
sumptuousness
Sunderland
superabundance
super-annuation
super-eminence
super-excellent
superficialness
superfluity
super-intendent

S Y N

superlativeness
supernumerary
superstitions
supervention
suppletory
supportableness
suppressor
supramundane
supremeness
sureness
surgeon
surpassingness
surround
suspect
suspiciousness
sustenance
swagger
swarm
swear
sweep-stake
sweet-heart
swept
swimmer
swine-herd
swinishness
switch
Switzerland
swordsmen
sycophant
syllabically
syllogistical
Sylva
Sylvester
symbolical
symmetry
sympathetic
sympathize
symphony
symptom
synagogue
synchronism

T A N

syncope
synod
synodical
synonymous
synopsis
syntax
synthesis
synthetical
syringe
syrup
system
systole

T

Tabernacle
tablature
tabular
tackling
Tadcaster
Taddington
Tafford-bridge
tag rag
tailor
Talbott
tale-bearer
talisman
talkative
tallow
Tallow-down
tally-man
Talmud
Talmudical
Talyfar
tamarind
tamely
Tammuz
tamper
Tamworth
Tangier
Tanhill
tankard
tantalize

TEN

THI

TIM

tantivy
 tapestry
 tapester
 tarantula
 target
 tarnish
 tart
 tartane
 Tartar
 Tartary
 tasteless
 tatterdemalion
 tattoo
 taverner
 Tavestock
 tauntingly
 tantological
 tantology
 Taunton
 Taunton-bishop
 tawdry
 taxation
 teachable
 team
 technology
 tedious
 telescope
 temperate
 tempest
 templar
 temple
 temporal
 temporize
 tenable
 tenacious
 tenantable
 Tenbury
 Tenby
 tendency
 tender-hearted
 tenderly

tenderness
 tenement
 Tencriss
 Tenterden
 tent-wort
 Teraphim
 termagant
 termination
 terraqueous
 terrestrial
 terrible
 terrise
 Terring
 territory
 terror
 testaceous
 testament
 testific
 testimonial
 testiness
 Tetbury
 Tets-worth
 Tettershall
 Teutonic
 Tewksbury
 texture
 Thames
 thankfulness
 theatre
 theme
 Theocracy
 theologian
 thereafter
 thereupon
 thermometer
 thermoscope
 Therkston
 Thetford
 thicken
 thicker
 Thickham

thief
 thievishness
 thimble
 thinker
 thirstiness
 thistle
 Thong-Castle
 Thorne
 thornback
 Thornbury
 Thornecomb
 thorough
 Thorp
 thoughtful
 thousand
 thraldom
 thrasher
 threadbare
 threefold
 Threlkeld
 threshers
 throng
 throttle
 throwster
 Thummin
 Thursday
 Thurston
 thwart
 Tickhall
 ticking
 tickle
 tick-tack
 St. Tiddy
 tidings
 tightness
 Tilbury
 tillage
 tilt-boat
 tilt-yard
 timbrel
 timorous

T O W

T R A

- T Y P

timorousness	toy-man	transverse
tinker	tractable	trash
Tinmouth	tractate	Travegarn
tinsel	tradesman	traveller
tirewoman	trade-wind	treacherous
Titchwoman	tradition	treachery
titillation	traduce	treasonable
tit-mouse	trage-comedy	treasurer
Tiverton	trage-comical	treasureship
tobacco	tragical	treatment
Tocester	train-bands	Tregaron
Tockington	train-oil	Treleigh
together	traiterous	tremble
toilsome	tranquility	trepanner
toilsomeness	transaction	trepidation
Toledo	transcend	trepidity
tolerable	transcribe	Treshevimick
toleration	transcript	Trevilan
Toll-booth	transfer	tribulation
tongue-ty'd	transfiguration	tribunal
tooth-ach	transfigure	trickish
toothsome	transfuse	triennial
topaz	transgress	triflingly
Topcliff	transgressor	Trigcey
toper	transient	trigonometry
Tophet	transition	Trinitarians
topography	transitoriness	Trinity
Topsham	translation	Tripoly
topsy-turvy	transmigration	troublesome
torment	transmography	Tubal
torrent	transmutable	Tuddington
Torrington	transparent	Tudworth
torture	transpiration	Tuilleries
tory	transpire	Tukesbury
St. Toffel	transplant	tulip
Totness	transport	tamour
touch-stone	transporter	Tunbridge
toughly	transpose	turnpike
tournaments	transposer	Tweed
toward	transposition	typographical
township	transubstantiation	typographically

V A S

typographer
typography
tyrannical
tyrannically
tyrannicalness
tyrannicide
tyrannize
tyrant
tyranny
tyro

V. and U.

Vacuum
vade-mecum
vagabond
vagary
vagrant
vain-glorious
vain-gloriousness
valedictory
valetudinary
valliant
valid
validity
valorous
valuable
vambulance
Vandal
vane
van-guard
vanish
vanity
vanquish
vaporation
vapour
vapouring
variable
variance
variation
variety
varlet
vassal

V. E. R.

vast
 Vatican
 Vavafor
 Vandois
 vaulter
 vaunt
 veal
 vegetable
 vehemence
 vehicle
 vellum
 velocity
 velvet
 venal
 venerable
 veneration
 venercal
 ventry
 Venetian
 vengeance
 venial
 Venice
 venom
 venomous
 ventilation
 venture some
 venturous
 Venus
 veracity
 verb
 verbal
 verbatim
 verberate
 verberation
 verbose
 verboseness
 verbosity
 verdont
 verdigrease
 verderer
 verditer

V t A

verdure
verger
verification
verjuice
vermicular
vermiculation
vermillion
vermin
vernacular
vernal
verse
versicle
verification
versify
vertex
vertiginous
vertigo
vervain
very
vesicle
vesicatory
vespers
vessel
vestes
vest
Vesta
Vestal
vestible
vestiger
vestment
vestry
vestry-man
vesture
vetches
veteran
vex
vexation
vexatious
ugly
ugliness
vial

VIN

VIS

UNA

viands	vine	visibleness
viaticum	vineyard	visible
vibrate	vinegar	Visier
vibrating	vinew	vision
vibration	vinet	visionist
vicar	vinous	visit
vicarage	vintage	visitation
vicarship	vintner	visney
vice	vintress	visual
vicious	vintry	vital
vice-admiral	violable	vitalness
vice-chancellor	violate	vitiate
vice-gerent	violation	vitious
vice-roy	violence	vitiousness
vice-royalty	violent	vitreal
vicinity	violentness	vitreous
vicinage	violin	vitrisie
vicissitude	violencello	vivace
victim	viper	vivacious
victor	virago	vivacity
victoriously	virgin	Vivian
victory	virginals	vivid
victualer	Virginia	vivification
victuals	virginity	vivify
Vienno	virid	viviparous
view	virile	vixen
vigil	virility	vizard
vigilant	virtual	ulcerate
vigorous	virtuoso	ulceration
vigour	virtuously	ulcerous
vileness	virulency	ullage
vilisic	virulent	ulnage
village	virulently	ulterior
villager	virulentness	ultimate
villanous	visage	Ulverston
villainously	visera	umber
villainy	viscount	umbrage
Vincent	viscountess	umbrella
vincible	viscous	umpire
vindication	viscousness	unacceptable
vindictive	visibility	unaccountable

UNC

UND

UNH

unaccustomed	uncivil	undress
unacquainted	unclasp	unduly
unactive	unclean	undutiful
unadvised	unclothe	uneasy
unaffected	uncomfortably	uneloquent
unaided	uncomely	unemployed
unalterable	uncommon	unequal
unanimity	unconcerned	unerring
unanswerable	unconceivable	uneven
unarmed	uncondemned	unexecuted
unarrayed	unconfortable	unexpected
unassisted	unconquerable	unexpert
unattentive	unconquer'd	unexpressible
unattainable	unconscionable	unfairly
unavoidable	unconstant	unfaithful
unawaked	unconstrained	unfashioned
unawares	uncontestible	unfasten
unbecoming	uncontrolable	unfeigned
unbegotten	uncorrected	unfenced
unbelief	uncover	unfinished
unbeliever	uncourteous	unfitted
unbend	uncrowned	unfold
unbidden	unction	unformed
unblamable	uncultivated	unforeseen
unblind	uncustomed	unfortified
unbloody	undaunted	unfortunate
unboiled	undecided	unfound
unbooted	undefiled	unfriendly
unbound	underling	unfruitful
unbowel	undermine	ungainful
unbridled	understand	ungarnished
unbuilt	undertake	ungenteel
unbutton	under-value	ungird
un capable	undervalument	ungodliness
uncertain	under-written	ungovernable
unchangeable	undeserved	ungracious
uncharitable	undetermined	ungrateful
unchaste	undisciplined	unguent
unchristened	undistinguishable	unhabitable
unclorched	undivided	unhandsomely
uncircumspect	undoubted	unhandy

U N M

U N R

U N S

unhappily	unmindful	unremoved
unhappy	unmolested	unrepaired
unharbour	unmovable	unresolved
unharnessed	unmould	unrespectful
unhealthful	unnatural	unrevenged
unhealthily	unnecessary	unrewarded
unheard	unneedful	unrighteous
unholy	unoccupied	unruly
unhook	unopposed	unsaddle
unhorse	unorderly	unsafe
unhusbanded	unpaid	unsaid
unicorn	unparallel'd	unsaluted
unison	unpardonable	unsanctified
unitarian	unpeaceably	unsatisfactory
universe	unpeople	unsavory
unjust	unperceivable	unscriptural
unkind	unperfect	unsealed
unknown	unpleasing	unsearchable
unladen	unpolished	unseparable
unlamented	unpolled	unserviceable
unlawful	unpremeditated	unsettled
unlearn	unprejudiced	unshaded
unlearned	unprepared	unshaken
unleavened	unprevented	unshaven
unlicensed	unprofitable	unshod
unluckiness	unprosperous	unskilful
unlimited	unprovided	unsoared
unload	unpruned	unsociably
unlook	unpunished	unfold
unlooked	unpurged	unsolid
unloose	unquenched	unsound
unlovely	unquiet	unspeakable
unlucky	unravel	unspent
unmanly	unready	unspotted
unmannerly	unreasonable	unstable
unmarried	unrebukable	unstained
unmasked	unreclaimed	unsteady
unmatch	unreformed	unstirred
unmeasurable	unregardful	unstop
unmeetness	unrelenting	unstring
unmerciful	unremitted	unsuccessful

UNW

URG

WAL

unsuitable	unwilling	urgent
unsure	unwind	urinal
untaken	unwise	urine
untamed	unworn	urn
untangle	unworthy	Ursulines
untanned	unwound	usage
unteachable	unwritten	usance
untenable	anyoke	use
unthankful	vocabulary	useful
unthinking	vocal	usher
unthoughtful	vogue	Uskmouth
unthriftilly	voice	usual
untill	void	usurp
untilled	voider	usurpation
untimely	voidness	usurer
untoward	volacious	usury
untowardly	volatile	utensils
untractable	volition	utile
untried	voluble	utmost
untrimm'd	volume	Utopian
untrue	voluntary	utter
untruth	volantier	vulnerable
untrustiness	vomit	vulnerable
untunable	voracious	vulpine
unvail	votary	vulture
unvers'd	votive	uvula
un-uniform	voucher	Uxbridge
unusual	vouchsafe	uxorious
unusually	vow	uxoriously
unutterably	vowel	uxuriousness
unwarily	voyage	Uzziah
unwary	upbraid	Uzziel
unwashen	Uphilhaven	W
unwasted	upright	Waggoner
unwater'd	uproar	Wainfleet
unwearied	upside	wainscot
unweariedness	upstart	waiter
unwedded	Upton	waiward
unwelcome	upward	Wakefield
unwholsom	urbanity	wakeful
unwieldiness	urge	Wales

W A S	W A Y	W E D
Walfleet	walt	way-wood
Walgrove	waste	we
wall	wastfully	weak
Wallase	wastfulness	weaken
wallet	Wat	weakly
Walloons	watch	weakness
wallop	watcher	weal
wallow	Watchet	weald
wallowish	watchful	wealth
Walmer	watchfully	wean
walnut	watchfulness	weaning
Wallingham	water	weapon
Walton	water-measure	weaponless
wamble	water-pipe	weapon-slave
wander	waterage	wear
wanton	watergang	wearied
wantonness	waterish	wearily
war	waterishness	weariness
Warbridge	watery	wearisome
warden	Watford	wearisomness
wardenship	Wath	wearry
wardmote	Watling-street	weashed
wardrobe	Watlington	weasal
Ware	wattle	weather
warfare	Wattleton	weather-be
wariness	Watton	weather-board
warm	wave	weather-cock
warmack	waver	weather-gage
Warnford	wayeringly	weather-glass
warrant	wavy	weather-wind
warrener	wawl	weave
Warrington	wax	weaver
Warfop	waken	web
Warwick	Waxham	webster
wash-bowl	way	wed
wasf	wayfaring	wedding
wasfish	Wayhill	wedge
wasfishly	waylay	Wesley
wasfishness	waylayer	wedlock
wassel	St. Waynam	Wesmore
wassellers	wayward	Wednesday
	way-wiser	

WH	WH	WH
whiffler	white-meats	why
whig	whiten	wick
whiggishness	whiteness	wicked
whiggish	White-Parish	wickedly
while	whither	wickedness
whiles	whithersoever	wicker
whilom	whiting	wicket
whilst	whitish	Wickliff
whim	Whitland	Wickliffians
whimsical	whitlow	Wickomb
whimsically	Whitminster	Wickware
whimsicalness	Whitstable	widdle-waddle
whimsy	Whitstable	wide
whim-wham	Whit Sunday	widely
whindle	Whit Sunday	widen
whine	whittle	wideness
whip	Whittlesey	widgin
whipper	Whitton	Widington
whiplaw	Whittingham	widow
whipster	Whitwell	widower
whipstaff	whiz	widowhood
whirl	who	width
whirl-bone	whole	wield
whirligig	wholly	wieldings
whirl-pool	wholsom	wieldy
whirl-wind	wholsomly	wife
whish	wholsomness	wig
whisk	whomsoever	Wigan
whisker	whoop	Wigborne
whiskingly	whoop	wight
whisper	whore	Wighton
whisperer	whoredom	Wigmore
whist	whoremonger	Wigton
whistle	whorish	Wilcot
whistler	whorishly	wild
whit	whorish	wild-creature
Whitchurch	whorl	wilderness
Whit-Down	whorle	wildfire
white	whose	wildfire
white-hair	whose-soever	wildly
white-liver'd	whur	wildness

An English Spelling Dictionary

WIN

WIT

WON

wile	Winfred	withholden
Wilfred	wing	within
wilful	winged	without
wilfully	wink	withsay
wilfulness	winnow	withstand
wilily	Winný	withy
wiliness	Winflow	witnes
wily	Winfom	wittal
wilk	Winter	witwak
will	Winterborn	Witney
William	winter-green	Wivelcomb
Willing	winterly	wizard
willing	Winterton & Ness	wo
willingly	wipe	woad
willigness	wire	Woburn
willow	wire-draw	Woden
Wilmsion	Wirham	woe
Wile-comb	Wirksworth	woer
Wiltshire	wisac	woful
wimble	Wisbich	wofully
Wimbleton	wisdom	wofulness
wimple	wife	wold
Winard	with	wolf
Wincaunton	withfully	wolf-bane
wince	wicket	Woller
winch	wisp	Wollot
Winchcomb	wist	Wolrich
Winchelsey	wit	Woltingham
Winchester	Witborn	wolvish
wind	witch	woman
wind-bound	witchcraft	womanishness
winder	Witch-claw	womanly
windfal	with	womb
Windham	withal	Wombwell
winding	Witham	won
windlass	Witham South	wonder
windless	Witheridge	wonderful
window	withdraw	wonderfully
Windfor & Cuffe	with	wonderfulness
Windward	Withernam	wonderment
wine	withhold	wont

N

WOR

WRE

YAR

wood	worshipfully	wrestler
Woodbridge	worshiper	wretch
wooden	Worship	wretched
woodenly	worst	wretchedly
Woodall	worsted	Wrexham
Woodland	wort	wriggle
Woodley	worth	wright
woodmonger	Worthen	wrinkle
woodpecker	worthily	wring
woodroof	worthiness	wrinkle
Woodstock	worthless	Wrinton
woodiness	worthlessness	wrist
woodward	worthy	wristband
woody	wot	write
wool	Wotton	writer
wool	wove	writhe
woollen	would	writhen
woolly	wound	written
woolstaple	woundily	wrong
Woolwich	wound-wort	wrongful
wop-ey'd	woundy	wrongfulness
Worcester	wrack	wrongfully
word	Wragby	wrote
work	wrangle	wroth
worker	wrangler	Wrotham
workman	wrap	wrought
workmanlike	wrapper	wrung
workmanship	wrapt	wry
Workshop	wrath	wryly
world	wrathful	wry-necked
worldly	wrathfully	Wulstan
worm	wrathfulness	wyche
worm-eaten	wreak	wydraught
worm-feed	wreath	Wye
Wormhead	wreck	wyven
wormwood	wren	wyver
worn	wrench	Y
worry	wrest	Yatch
worle	wrestler	yap
worship	wrestling	yar
worshipful	wrestle	yard

yard-arm 1511 yerk
 yard-land 1512 yerker
 yare 1513 yerl
 Yarmouth 1514 yes
 yare 1515 yesterday
 Yarrish 1516 yesternight
 yarrow 1517 yet
 Yarnum 1518 yet
 yaspin 1519 yexing
 yate 1520 yield
 yaw 1521 yieldingness
 yawl 1522 yoke
 yawn 1523 yoke-fellow
 yawn 1524 yokker
 yawn 1525 yon
 yawn 1526 yonder
 yawn 1527 yonker
 yawn 1528 yore
 yawn 1529 York
 yawn 1530 Yorkshire
 yearly 1531 you
 yeast 1532 young
 yell 1533 younger
 yell 1534 youngling
 yellow 1535 youngster
 yellowish 1536 your
 yellowness 1537 youthful
 yelp 1538 youthfully
 yell 1539 youthfulness
 yeman 1540 yule
 yemanry 1541 yule-block
 Yeovil 1542 yule-gaun
 yawn 1543 yule-gaun
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